THE JOURNAL OF

# HEALTH AND PHYSICAL EDUCATION

FORMERLY THE AMERICAN PHYSICAL EDUCATION REVIEW FOUNDED IN 1896

JANUARY

1932

Vol. III, No. 1

The American Physical Education Association . . . . . E. D. Mitchell

A State Program in Health and Physical Education . . . . William G. Moorhead

The Dance in Physical Education . . . . . Ruth St. Denis

A Health Issue in the School Today . . . . . Ethel Perrin

Blazing New Trails in Education . . . . . W. G. Coburn

Physics Applied to Physical Education . . . . . T. K. Cureton, Jr

Report of the Ethics Committee . . . . Harry Scott, Chairman

Fitting Feet for Play . . . . . Dr. W. R. Redden

A Four Year High School Program . . . . . Louis Kulcinski

Basketball Skill Games . . . . . Ralph J. Schnitman

A School Circus . . . . . Marion A. Shepard

Projects of Our Girls' Athletic Association . . . . . Marie Snavely

Intramural Athletics in the Small High School . . . . Clarence E. Swackhamer

Physiology at the Service of Physical Education . . . . . A. H Steinhaus

Around the Country with J. E. Rogers

AMERICAN PHYSICAL EDUCATION ASSOCIATION

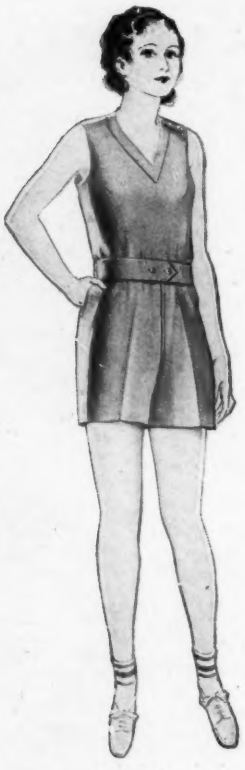
# The Reason *Why* . . .

**For twenty years C. A. Chancellor and his organization have been engaged exclusively in manufacturing women's and men's athletic clothing. The "Perfetex" trade-mark was adopted in 1925. During this period two factors were largely responsible for our expansion and success . . . First—*Dependability* . . . Second—*Quoting a fair price for a high quality of finished work.***

The NEW 1932 Catalog and Style Book is just off the press. Your copy will be mailed on request.

**Chancellor & Vaughan**
**430 S. GREEN ST. CHICAGO, U.S.A.**
Perfetex Athletic Clothing Inc

Any of the styles shown below may be obtained in Economy Cloth, Indian Head or Plantation Cloth.

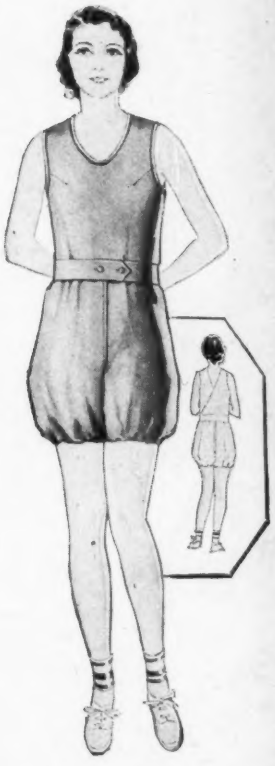


**E-28**

A modern one piece track and gym suit with pants legs. Sewed with fast colored thread — unbreakable buttons to match.

**E-15**

Popular one piece suit for all athletic activities. Full cut knickers. Sewed with fast colored thread —unbreakable buttons to match.



**E-38**

New "Step-In" one piece gym suit for gym and corrective class work. Round neck. V back. Full cut circular knickers. Sewed with fast color thread. Unbreakable buttons to match.

## In all styles — Perfetex Athletic Clothing — variety of colors

The Journal of

# HEALTH and PHYSICAL EDUCATION

Vol. III JANUARY, 1932 No. 1

**AMERICAN PHYSICAL EDUCATION ASSOCIATION**

**Officers**

President, Miss Mabel Lee, Univ. of Nebraska.
Vice Pres., Jesse Feiring Williams, M.D., Columbia Univ.
Secretary-Editor, E. D. Mitchell, University of Michigan.
Chairman Field Service, James E. Rogers, N. Y. City.

**Additional Members of Executive Committee**

Marjorie Bouve, Bouve-Boston School of Phys. Educ., Boston
Emil Rath, Normal College of A. G. U., Indianapolis.
Mary C. Coleman, N. Carolina College for Women, Greensboro.
V. S. Blanchard, Public Schools, Detroit, Mich.
Dr. C. L. Brownell, Columbia Univ., New York, N.Y.
Henry Foster, University of Washington, Seattle.
F. W. Maroney, M.D., Columbia University, New York.

**Officers of the Eastern Society**

President, Miss Marjorie Bouve, Boston, Mass.
Vice President, J. B. Nash, New York University.
Sec'y-Treas., Grace Jones, Public Schools, Summit, N. J.

**Officers of the Middle West Society**

President, Emil Rath, Normal College of A.G.U., Indianapolis.
Vice President, Miss Blanche M. Trilling, Univ. of Wisconsin.
Secretary-Treasurer, Dr. C. O. Molander, University of Chicago.

**Officers of the Northwest Society**

President, Henry Foster, University of Washington, Seattle.
First Vice President, Paul R. Washke, University of Oregon.
Second Vice President, Rita Jahreiss, Spokane, Wash.
Sec.-Treas., Clair V. Langton, Oregon State College.

**Officers of the Southern Society**

President, Mary C. Coleman, North Carolina College, Greensboro.
Pres.-Elect, David K. Brace, Univ. of Texas.
Vice President, C. M. Miles, Jacksonville, Fla.
Sec., T. E. McDonough, Teachers College, Richmond, Ky.
Treas., Miss M. M. Wyman, Public Schools, Louisville, Ky.

**The Legislative Council**

**The Officers and Executive Committee are included in addition to the names below.**

G. B. Affleck, Teacher Training Section.
B. E. Bayh, Indiana State Society.
Margaret Bell, M.D., Therapeutic Section.
C. E. Brewer, Recreation Section.
John Brown, Jr., M.D., Y.M.C.A. Physical Directors' Society.
R. D. Brown, Illinois State Society.
A. D. Browne, M.D., Tennessee State Society.
William Burdick, M.D., Maryland State Society.
Harry Burns, M.D., Pennsylvania State Society.
H. G. Danford, Ohio State Society.
Edgar W. Everts, Minnesota State Society.
Clara Fedler, Indiana State Society.
Edith M. Gates, Y.W.C.A. Physical Directors' Society.
Major E. V. Graves, M.D., Virginia State Society.
Strong Hinman, Kansas State Society.
Allen G. Ireland, M.D., New Jersey State Society.
Grace Jones, Women's Section on Athletics.
A. S. Lamb, M.D., McGill University, Canada.
Clair V. Langton, D.P.H., Oregon State Society.
Harold Lauritsen, Nebraska State Society.
Helen Manley, Missouri State Society.
Nell Martindale, Missouri State Society.
C. H. McCloy, Ph.D., Iowa State Society.
J. H. McCurdy, M.D., National Collegiate Athletic Association.
William G. Moorhead, Pennsylvania State Society.
Gertrude Moulton, M.D., National Association of Directors of Physical Education for Women in Colleges and Universities.
Grover W. Mueller, Pennsylvania State Society.
Jay B. Nash, Ph.D., American Academy of Physical Education.
Robert Nohr, Wisconsin State Society.
D. Oberteuffer, Ph.D., Ohio State Society.
H. Otopalik, Iowa State Society.
Robert C. Rice, Connecticut State Society.
Ethel Rockwell, Michigan State Society.
Floyd A. Rowe, Ohio State Society.
C. W. Savage, College Directors' Society.
Mazie V. Scanlan, New Jersey State Society.
Carl P. Schott, Ph.D., West Virginia State Society.
Carl Schrader, Society of State Directors.
Harry Scott, Ph.D., Texas State Society.
J. R. Sharman, Ph.D., Michigan State Society.
H. T. Taylor, Kentucky State Society.
A. W. Thompson, Public Schools Section.
A. P. Way, M.D., Administrative Directors' Society.
Agnes R. Wayman, Women's Division, N.A.A.F.
W. J. Wittich, Wisconsin State Society.
Jessie R. Garrison, Alabama State Society.
M. F. Harlicek, Illinois State Society.
Mrs. Grace Clifford Howard, Maine State Society.
Grace Lomilino, Illinois State Society.
R. N. Sandlin, Texas State Society.

## In This Issue

| | Page |
|---|---|
| THE AMERICAN PHYSICAL EDUCATION ASSOCIATION. *By Elmer D. Mitchell*.... | 3 |
| A STATE PROGRAM IN HEALTH AND PHYSICAL EDUCATION. *By William G. Moorhead* ..... | 8 |
| THE DANCE IN PHYSICAL EDUCATION. *By Ruth St. Denis*..... | 11 |
| A HEALTH ISSUE IN THE SCHOOL TODAY. *By Ethel Perrin*..... | 15 |
| BLAZING NEW TRAILS IN EDUCATION. *By W. G. Coburn* ..... | 19 |
| PHYSICS APPLIED TO PHYSICAL EDUCATION. *By Thomas K. Cureton, Jr*..... | 23 |
| EDITORIALS ..... | 26 |
| REPORT OF THE COMMITTEE ON PROFESSIONAL ETHICS. *Dr. Harry A. Scott, Chairman* ..... | 28 |
| FITTING FEET FOR PLAY. *By W. R. Redden, M.D.* ..... | 30 |
| A FOUR YEAR HIGH SCHOOL PROGRAM. *By Louis Kulcinski* ..... | 34 |
| BASKETBALL SKILL GAMES. *By Ralph J. Schnitman* ..... | 36 |
| A SCHOOL CIRCUS. *By Marion A. Shepard* | 38 |
| PROJECT OF OUR GIRLS' ATHLETIC ASSOCIATION. *By Marie Snavely*..... | 39 |
| INTRAMURAL ATHLETICS IN THE SMALL HIGH SCHOOL. *By Clarence E. Swackhamer* ..... | 40 |
| PHYSIOLOGY AT THE SERVICE OF PHYSICAL EDUCATION: 13. THE THEORY OF MUSCULAR CONTRACTION IS BEING RENOVATED. *Arthur H Steinhaus*..... | 44 |
| AROUND THE COUNTRY WITH J. E. ROGERS | 48 |
| HOW WE DO IT..... | 52 |
| IT MAY INTEREST YOU TO KNOW..... | 54 |
| BOOK REVIEWS ..... | 64 |

THE JOURNAL OF HEALTH AND PHYSICAL EDUCATION
Published by the American Physical Education Association
P. O. Box 362, Ann Arbor, Michigan
Published monthly from September to June
(10 issues)

| | |
|---|---|
| Professional Membership, including the Journal and the Society's Research Publications | $5.00 |
| Active Membership (including Journal) | 2.00 |
| Single Copies | .35 |

The contents of previous issues of The Journal of Health and Physical Education can be found by consulting the Education Index in your library.

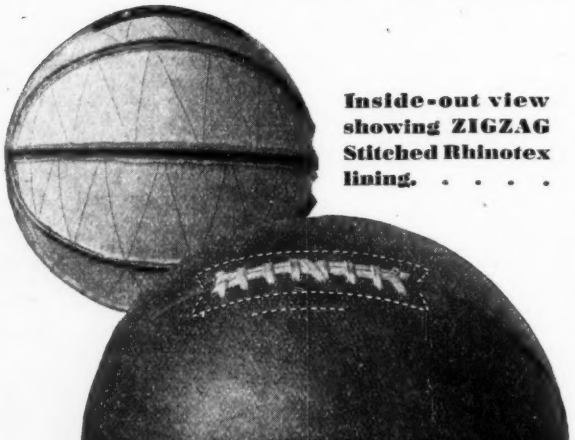
Copyright, 1932, by the American Physical Education Association. Entered as second-class matter, January 6, 1930, at the post office, Ann Arbor, Michigan, under the act of March 3, 1879.

# NOW! The D & M 7GK Official Basketball

## *with* THE NEW D & M

# ZIGZAG STITCH

## AND RHINOTEX LINING



**Inside-out view showing ZIGZAG Stitched Rhinotex lining. . . . .**

A basketball usually loses its shape long before it wears out. Now comes the D & M 7GK Official Basketball with a complete answer to this problem in the form of two perfected features—the new D & M ZIGZAG Stitch and Rhinotex lining. The ZIGZAG Stitch (patent applied for) divides the lining of the Official Basketball into small triangular sections. This gives reinforcement and guards against the least tendency of the ball to lose its shape. The lining itself is made of two layers of Rhinotex, a new fabric of unusual strength. The layers are placed with their weaves running at right angles, thus equalizing the tension from inflation throughout the entire area of the ball. Grueling factory tests prove the superiority of ZIGZAG Stitched Rhinotex over the ordinary type of lining.

Notre Dame's famous basketball coach, George Keogan, says, "After putting the new D & M No 7GK through every known test, I must admit it is the best playing and most durable ball I have ever seen. Frankly, its stamina is surprising—really sensational."

Selected and matched, pebbled grain cowhide is used for the cover of the D & M 7GK Official Basketball. It is fitted with a patented valve type bladder of pure para rubber and double "flush" rawhide lacing. Order at least one of the ZIGZAG Stitched Rhinotex lined balls from your dealer in time for early practice. Use it, test it in every way possible and be convinced that D & M has developed a ball that actually maintains its shape indefinitely. In the meantime send the coupon for a folder describing the ZIGZAG Stitch. You will also want one of the new D & M Coaches' and Players' Handbook. Full of valuable information, this book describes and diagrams many basketball plays. This will be sent you with the complete description of the new ZIGZAG Stitched Basketball.

**GEORGE KEOGAN**

***Basketball Coach, Notre Dame, enthusiastically endorses the new D & M 7GK Official Basketball***

## THE DRAPER-MAYNARD COMPANY

## Plymouth, New Hampshire

The Draper-Maynard Co.
Dept. H-1, Plymouth, N. H.

- ☐ Send folder describing the details of these new D & M features and showing remarkable tests.
- ☐ Send my copy of the D & M Coaches' and Players' Handbook.
- ☐ Send new D & M Fall and Winter Catalog.

*Name*.....

*School*.....

*City*..... *State*.....

*Our sporting goods dealer*.....

D&M ATHLETIC GOODS

# The American Physical Education Association

By
ELMER D. MITCHELL
Secretary-Editor

The first of a series of articles explaining the origin, purpose, and program of national organizations in the fields of health, physical education, and recreation.

THE American Physical Education Association was officially founded in November, 1885. At that time Dr. William G. Anderson of Adelphi Academy, Brooklyn, later physical director of Yale University, was instrumental in calling together a gathering of about sixty teachers for the purpose of organizing a society of physical education. The gathering resulted in the formation of the "American Association for the Advancement of Physical Education" with Dr. Edward Hitchcock, of Amherst College, as the first president. The objects of the Association were stated as follows: "to disseminate knowledge concerning physical education, to improve methods, and by meetings of the members to bring those interested in the subject into closer relation to each other."

The new Association was particularly fortunate in obtaining prominent leaders in the early history of physical education for its presidents: for example, Dr. Edward Hitchcock, William Blaikie, Dr. Dudley A. Sargent, Dr. E. M. Hartwell, Dr. J. W. Seaver, Dr. Watson L. Savage, and Dr. Luther Halsey Gulick. This tradition of able leadership was well carried on by Dr. George L. Meylan, Dr. R. Tait McKenzie, Dr. E. H. Arnold, Dr. William Burdick, Dr. Dudley B. Reed, Carl L. Schrader, C. W. Savage, and Dr. F. W. Maroney.

Each of the presidents made a distinct and original contribution to Physical Education. Dr. Hitchcock was the father of college physical education and developed the program at Amherst College that was to serve as a model for all other departments for a long time. Dr. Sargent was well known for his work in the field at Harvard University and his system of exercises had many followers. Dr. Gulick was especially known for his work in the physical department of the Y.M.C.A. and in hygiene and playground movements, and in addition was the founder of the Camp Fire Girls in America. Dr. Arnold and Dr. Savage developed strong teacher training programs at the Normal Schools that still bear their names. Dr. Meylan was especially interested in the "Camp Movement." Dr. R. Tait McKenzie as director of physical education at the University of Pennsylvania has played a prominent part in formulating the ideals and policies of the profession and as a sculptor has added distinction to physical education by the fame of his statues of "sporting youth." All of these leaders have been influential in the profession through their writings and speeches.

It is impossible to mention in one short article all the men and women whose contributions have added influence and power to the profession of physical education and its National Organization. It is therefore natural that the earlier leaders should be mentioned instead of the younger men and women who are at the present time making physical education history. It is possible to discover "Who's Who" in American physical education by a review of the names of the council members of the American Physical Education Association from its beginning. Among others are those of Baroness Rose Posse, founder of the Posse Normal School and a leader in the work of medical gymnastics of her day; W. A. Stecher, for many years director in the schools of Philadelphia; Miss Amy Homans, founder of the Boston Normal School which is now the Department of Hygiene of Wellesley College; Mr. Joseph Lee, author and so-called father of the Playground Movement; Dr. Paul Phillips, Professor of Physical Education at Amherst College; Miss Ethel Perrin, now with the American Child Health Association; Miss Jessie Bancroft, author of books on play and posture and at the present time Honorary President of the American Posture League; and those of many other more recent writers and thinkers who deserve mention.

There have been five constitutions in the history of the society. Each new one was created in response to new problems presented by the rapid growth of the organization and the necessity of providing adequate representation for all sections of the country and all the specialized interests within the profession. In the third constitution, adopted in 1903, the name of the organization was changed to the "American Physical Education Association." This has remained the official name. Only recently the fifth constitution has been drawn up and approved by the National Council, which, under the new constitution, is known as the Legislative Council. This gave more emphasis to state affiliation, a move which was considered necessary in view of the rapidly growing state associations and the feeling that the states with the larger membership should have proportionately more representatives on the Council.

The "American Physical Education Review," for over thirty years the official organ of the Association, was founded in 1896. Previous to that time ten reports had been issued, one each year, the first in 1885 containing 8 pages, and the last in 1896 containing 228

---

NOTE: The writer is indebted to articles by Mrs. Persis McCurdy, former Assistant Editor of the American Physical Education Review, for some of the earlier historical material.

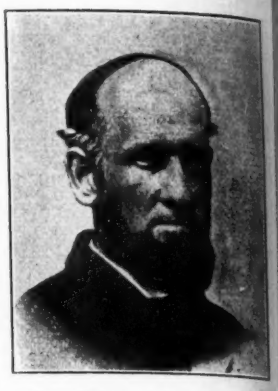
Adelphi Academy
Brooklyn N.Y. Nov. 17th 85

Dear Sir

At the meeting of persons interested in Physical training to be held at the Academy in this City Nov. 27th.
The following Gentlemen among others, will be present.
Dr Edward Hitchcock Amherst. Dr Dio Lewis N.Y. Prof. R.C. Dunham Brooklyn. Dr D.A. Sargent Harvard Dr J.W. Seaver Yale. Dr Edward Hitchcock Jr. Cornell. Dr Chas. McIntire Jr & J.D. Updegrave Lafayette N.J. Turner Princeton. Dr W.A. Ford Haverford & Swarthmore H.C. Putnam Vassar. Dr C.C. Ladd Bryn Mawr H.H. Hoskins West Point. W.C. Poslen A.M. Staten Island. H.S. Anderson Garden City School. Geo Goodie N.Y.A.C. J.D. Andrews Y.M.C.A. Prof. D.L. Bond N.Y. W.C. Bartlett Y.M.C.A. Phila. P.J. Roberts Y.M.C.A. Boston. A.H. Howard University of Boston.
On this occassion papers will be read relative to these subjects- Methods of teaching. Systems of Measurments. Necessity of organization. After which informal discussions will follow. Morning Session 10 oclock, afternoon session 1 oclock.
Wm Blaikie of the N.Y. Bar & Author of "How to get Strong will speak on this occasion.
To reach the Adelphi Academy. Cross Fulton Ferry or Bridge, take the Elevated Road & get off at DeKalb Av. & go one block to the left.
The Principals of a Number of Institutions have Notified us that they will be present besides prominent Physecians in New York & Brooklyn Leading News papers will be represented.

Yours truly
W. G. Anderson
Instructor Physical Training

This notice was written by Henry S. Anderson Nov. 16- 1885

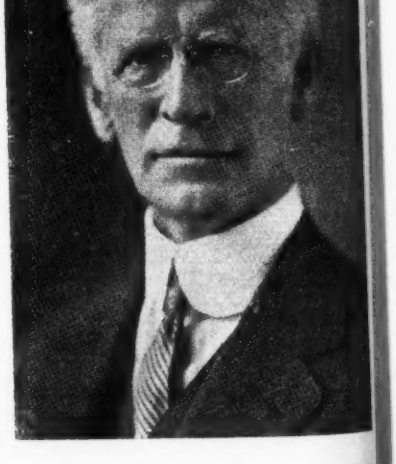


Dr. Edward Hitchcock
First President of the A. P. E. A.

Left--Reproduction of the letter to "persons interested in Physical Training" which resulted in the formation of the A. P. E. A. Many early leaders are mentioned.

Note--Pictures of all past presidents with the exception of Wm. Blaikie and Dr. Dudley Reed, which were unobtainable, are reproduced with this article.

Dr. Dudley Allen Sargent
President in 1890, 1892, 1894 and 1901



Dr. W. G. Anderson, who called the first meeting of the A. P. E. A.

**Miss Mabel Lee**
**President**

**Dr. J. F. Williams**
**Vice President**

**E. D. Mitchell**
**Secretary-Editor**

pages. The first "Review" was edited by a publication committee of which Dr. Hartwell was chairman. There were two numbers comprising 128 pages. The next year the Review was changed to a quarterly and so stayed until 1908 when it was enlarged to nine issues a year. The first publication committee existed four years with Dr. Fitz, of the Department of Physiology and Hygiene, Harvard University, chairman for the last two. In 1900 Dr. Fitz became editor, and he was also the editor in 1904 and 1905. In the three years between, Dr. Luther Gulick was editor. In 1906 Dr. James Huff McCurdy became editor of the Review and held that position until January 1, 1930, at which time he retired.

The Review, unlike the Reports, aimed to do more than publish the papers of the conventions. In the first editorial of Dr. Hartwell we find the following policy outlined: "The committee on publication and information desires to incorporate the following named departments in the Review: original articles, reprints of important articles in English and other languages that are not easily accessible as originally published, editorial comment, correspondence, news from the societies, book notices and reviews, bibliography." The initial policy has since been followed by subsequent editors, although there has been effort to feature the practical as well as the theoretical side of physical education.

In January, 1909, Dr. McCurdy presented his policy for the magazine: "The American Physical Education Review, under the direction of the National Council, undertakes to lead in scientific physical education in the things which are of technical interest to physical directors. The Review aims to cooperate with all who are working in this branch of education and with those in related fields of endeavor. It is its ambition to give to physical training teachers inspiration and technical knowledge concerning the latest scientific facts, so that it may aid them in securing for the children and adults with whom they have to do, health of body and wholeness of life...The Review sees in the physical director one who stands close to the pulse of humanity; it will aim during 1909 to present the latest information in the field of physical education, and such other material in related fields as seems of professional interest to the physical director."

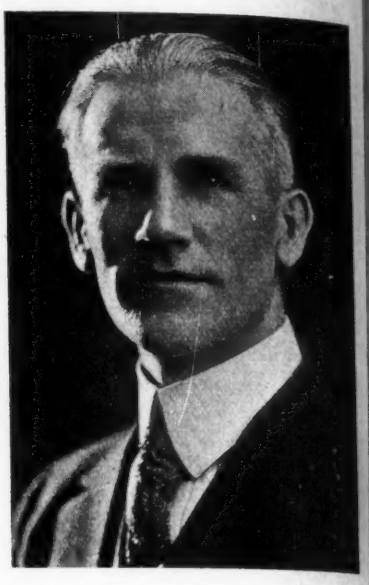
In 1922 the Review changed to ten issues a year (July and August excepted) and gradually expanded in size. Its contributors included many figures well known in educational and scientific research, its exchange list included scientific publications from all over the world; and its subscribers were not only from all the states of the Union but from foreign countries as well. Its members were found in colleges, public schools, private schools, Y.M.C.A.'s, Y.W.C.A.'s, German Turnvereins, private clubs, normal schools for physical training, playgrounds, and scouting organizations. This variety of interests made it necessary to include a wide variety of material in the Review in order to satisfy the needs of all the readers.

Each year since its beginning the Association has held a convention. The first one, in 1885, as already noted, was in Brooklyn. Prominent Eastern cities were hosts to the convention for seven years, but in 1893 Chicago was selected. It then again remained in the East until 1903 when it was held in Detroit. Until 1903 much of the time of the convention was spent in discussing the constitutional policy; beginning with that year, however, the business matters were delegated to the National Council and the conventions have since been devoted to theoretical and practical papers, demonstrations of practical work, and discussions.

For the purpose of rendering service to all types of interests, the convention includes both general and section programs. The section programs are of the following nature: Public School Section, Men's College, Women's College, Teacher Training, Boys' Athletics,

Dr. F. W. Maroney
President 1929-1931

Dr. Wm. Burdick
President 1917-1919



Carl L. Schrader
President 1923-1925

Girls' Athletics, Corrective Work, Boy Scouts, Folk Dancing, etc.

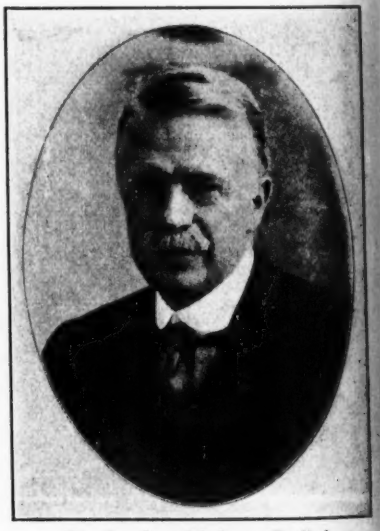
During these thirty years of growth the influences at work in physical education greatly changed. In the earliest days, the aims were largely health and developmental although there was little unity of opinion as to how these aims were to be reached. The various European systems of gymnastics had been brought to this country in the wake of the 19th century immigrations and had been championed in various cities and schools by zealous followers. The Jahn and Spiess systems of Germany vied with the Ling system of Sweden and with the Delsartian system of France. The English descendants pleaded for the informal games and sports. To add to the confusion over method, the colleges were quite disposed to look with favor upon the various exercises invented by Dr. Sargent in the form of pulley weights, rowing machines, and others. The Y.M.C.A.'s had also developed original ideas on exercise.

The rise of the playground and the athletic movement in the early years of the present century greatly changed the content of the physical education program which then became much more informal in nature, with emphasis on plays, games, and recreative sports. At the same time, the older disciplinary qualities in exercise gave way to self-expression; and exercises were promoted not as ends in themselves and for the mere sake of promoting proficiency but rather as a means to educational ends arising as the outcome of plays and games.

The enlarging of the content of physical education made it no longer a health, developmental, and curative agency but a medium also of mental, moral, and social qualities. Physical education, as a consequence, be-

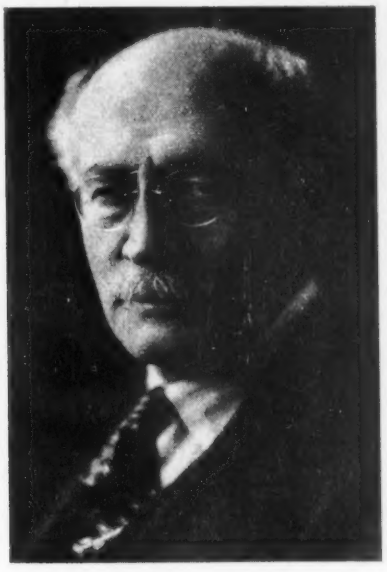
Dr. Ernst Herman Arnold
President 1916

Dr. Watson L. Savage
President 1903



Dr. Luther Halsey Gulick
President 1905, 1906, and 1909

C. W. Savage
President 1926-1928



Dr. R. Tait McKenzie
President 1912-1915

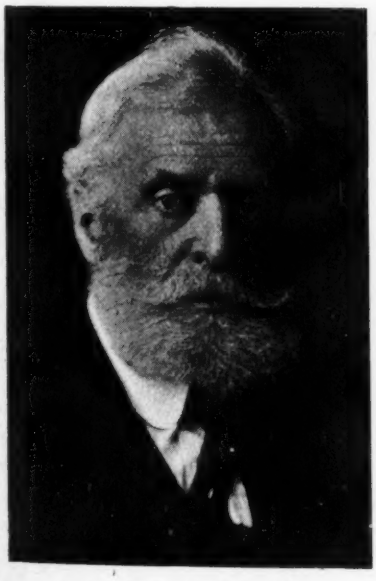
Dr. J. H. McCurdy
Editor of the Review 1906-1930

came more and more linked with the program of general education. It became an educational process.

The great rise of the modern health movement following the experiences of the war, with its emphasis on the preventive and positive aspects of health and its placing of this new responsibility on the schools, make a working alliance with physical education very necessary. We find, therefore, many cities using the combined title "Health and Physical Education." Responsibilities of school hygiene, health teaching, health service, required physical education, after-school athletics, and community recreation fall to this enlarged administrative division. The new developments have caused a corresponding change in the personnel of the administrative heads; originally medically trained, the new and close connection with education proper has caused a demand for administrators versed in a knowledge of the school system as a whole and possessing the M.A. or Ph.D. degree. The medical degree, while a decided asset, is no longer considered essential. Today, various systems throughout the country are being handled successfully by individuals trained in graduate fields in Education, Sociology, and Public Health as well as in Medicine. The absolute essential is a strong administrative ability which can coordinate the various phases of this comprehensive program.

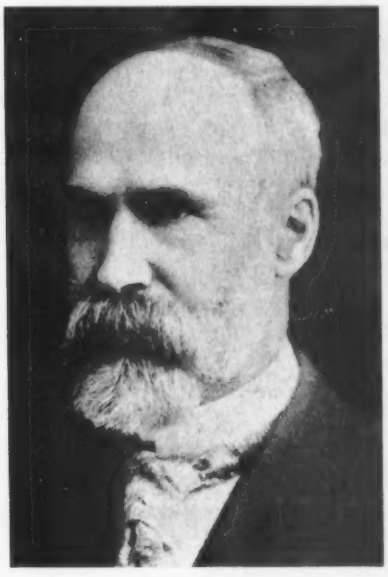
A number of prominent organizations throughout the country are affiliated with the American Physical Education Association at the present time and have representation on its Council. They are as follows: Society of Men Directors of Physical Education in Colleges; Y.M.C.A. Physical Directors' Society; Association of Directors of Physical Education for Women in

*(Continued on page 46)*



Dr. E. M. Hartwell
President 1891, 1893, 1897, 1899

Dr. George Meylan
President 1909, 1911



Dr. J. W. Seaver
President 1895, 1896

# A State Program in Health and Physical Education

By

**WILLIAM G. MOORHEAD**

Director, Division of Health and Physical Education, Pennsylvania

IF we are to believe a large part of the commercial literature on the subject, health is an elusive commodity that has to be searched for and finally, through some magical formula, it may become ours to enjoy.* It is something that is apparently purchasable in the form of drugs, food or exercise. The American people have become vitally interested in this rather indefinable something—have created a market for it—and our enterprising commercial concerns have been quick to exploit that interest. This quest or pursuit of health has led us far afield and we have not realized that health, like happiness and other worthwhile things in life, is to be found in the observance of and obedience to simple, and easily understandable, natural laws.

Riding at the forefront of this rising tide of interest in health matters are the public schools. Millions of dollars are being spent each year by the people of this country for the promotion and conduct of school health programs. Leaders in education are looking to us as leaders in this field to define just what that program shall be. They have a very definite idea that much can be done in the schools for the health of the child, but have very little information that is definitely helpful in assisting them to evaluate a program. Nurses, health teachers, physical educators and coaches all apparently have a part in this program. All these specialists are being provided—in other words, the personnel for the conduct of the program is available and they are looking forward hopefully and with a faith in our ability to get results that makes it a distinct challenge to those of us who are responsible for translating these hopes into realities.

What I shall say with reference to our state program is based upon ten years of personal observation as a supervisor and director of such a program. I shall concern myself with a necessarily brief discussion of three phases of it with which I have been chiefly concerned—health instruction, physical education and athletics.

### Health Instruction

President Morgan of Antioch College once said, "I seldom cross a bridge but that I feel a thrill because the breed to which I belong had the courage and stamina to stop and personally master that obstruction." The most thrilling chapter in the story of mankind's fight to control his environment is found in his successful efforts to conquer infectious disease. Walter Reed, Edward Livingston Trudeau, Edward Jenner and Louis Pasteur, in isolating the germs of dangerous diseases, have built such bridges, and children have been the first to benefit as they have always been the heaviest sufferers from insanitary conditions. Today more than ever before, they are surer to fill out a more generous span of life, to live more vigorous lives less hampered by disease and physical handicaps.

In one respect, however, we have exchanged new enemies for old. A comparison of mortality rates for 1875 and 1925 shows an increase for cancer and heart disease of almost 200%; disease of arteries 650%; and diabetes 1150%. We are facing a rapidly increasing array of occupational or industrial diseases, and the accumulating disorders of nutrition, those caused by over-indulgence in good foods as well as those following a partial deficit in some particular quality or article of nutriment. We have the slowly growing mass of cancer deaths, the mounting toll of loss from heart disease, the steadily increasing population of our hospitals for mental ailments—all to some degree representing preventable errors.

This list of the leading causes of death today discloses the weaknesses of our past efforts. No one can be compelled to live a healthful life by a sanitary ordinance. General knowledge of vitamins and calories will not insure a well-developed body, nor will familiarity with the terms of the psychologist secure a well-balanced mind, good conduct or rational emotions. We must go forward with this program and consolidate and improve our position through education of the individual child and parent, not alone with reference to factual material but by providing situations for the use of correct practices. This is one of the chief objectives of our program in health instruction, and it is the one that is the most difficult to achieve. The demand from teachers is, in too many instances, for more content—more textbook material. Textbook hygiene and physiology does not train the elementary school child in proper health habits. Discovery and occasional correction of defects has not affected the vitality of the great majority of normally healthy children. We have

*This paper was given before the Public School Section of the American Physical Education Association Convention in Detroit.

been and still are committing many serious errors in the name of "motivation." Thousands of children are weighed and measured each year in order that they may be required to meet an arbitrary and so-called "normal" standard, which, upon sober thought, has no reasonable justification. We have accepted any material that offers something that will make our teaching easier and the subject more interesting. We are using cheap literature, colorful perhaps, and thereby counteracting and nullifying the results of years of effort by the best teachers of the subject.

Through the so-called Health Crusade material and others of a similar nature, we have asked the child to check his own health habits and report to a teacher whom he wishes to please and whose disfavor he fears. We have set up a situation perfect in every respect for dissimulation and untruthfulness. We must be careful not to set up procedures whose results, in other respects, are more serious than the conditions we are attempting to correct. I believe it can be truthfully said that many classroom teachers are far ahead of us in their evaluation of the materials of health instruction.

With reference to our secondary school program, someone has stated the problem as follows:

"When a community assesses its secondary program in terms of health and good social adjustment of high school graduates, rather than in terms of their ability to pass college entrance examinations and survive the freshman year, we shall see a prompt right-about face in the high school attitude toward a health program. Of all our local non-profit institutions, high schools respond most quickly to local demands. The first step in encouraging a high school health program is to build a community demand for it and an appreciation of its importance.

"We are too often faced with the infantile character of the health programs and courses offered to high school pupils by well-meaning professional health workers. They are rivalled only by some of the sex education and character education propaganda. These mistakes are apparently due to a lack of understanding as to the mental level of the high school student and teacher. The science and art of maintaining the human body in health is sufficiently complex to call for the best efforts of mature minds.

"We should appreciate the statement of the authorities on intelligence tests, who tells us that at fourteen or thereabouts the normal person has reached mental maturity, in the sense of maximum ability to adapt himself to new situations, to learn complicated and abstract facts, to profit by experience, and to criticize his own performances. High school programs must be pitched at better than the average adult level of mentality though somewhat below the adult level of experience."

Our state program in health instruction has been organized through careful selection of materials and is topically arranged by years, and in the elementary field, by months. The courses have been grouped around four purposes.

1. The establishment of proper health habits in the elementary field.
2. The giving of information regarding the need of proper health as it relates itself to food, cleanliness, sleep, play, posture, etc.
3. The causes of preventable diseases and the means of checking their spread.
4. The formation of proper appreciation with regard to health and physical efficiency and the building up of proper attitudes in the individual as regards his responsibility for the health and safety of the community.

Our policy is to include in such a program all factors which promote good health and that are modifiable by education. "Outcomes" in terms of knowledge, habits and attitudes are very clearly indicated. "Situations" are offered that provide very definite and purposeful health activities. The "subject matter" has been carefully selected and includes material that we feel is educationally sound. Provision is made for a direct tie-up between the child, the school and the home. Opportunities are provided for healthful practices both in the school and at home. In other words, we are developing a method of health habit formation based upon essential information and secured through opportunities for the practices that will lead to worthwhile habits and right personal and social attitudes.

### Physical Education

Our most serious problem in the field of physical education, at the present time, is concerned with the program itself. School men and the general public have been generous in providing ample facilities, adequate time allotment and qualified teachers. We must not become too much concerned with the problem of academic credit until we have first developed a program that is consistent with sound, generally accepted educational practice as it concerns itself with methods general aims, procedure and results—a program based on the needs of the individual child. In other words, a graded, sequential program that is definitely progressive and, so far as physical achievement is concerned, is definitely measurable. We must think of our program in terms of *quality* rather than in terms of *quantity*. A certain number of periods per week under trained leadership and in well equipped gymnasiums will not assure us a good program. We must, first of all, organize our material of instruction into a well-balanced program that will lead us to the realization of very definite objectives. We must be assured that the classes that come to us in any one group shall, at least, be of the same school grade and in numbers consistent with good teaching. The too frequent policy of sending the child to the gymnasium whenever he has a vacant period, and disregarding grade placement, should be discontinued.

Secondly, we should provide a variety of activities selected and based on the physical, emotional and social needs of the pupils. Basketball alone is not enough—no activity should be chosen that does not offer the op-

portunity for every child in the class to participate all of the time. Our training schools for teachers of physical education must accept a great deal of the responsibility for our choice of activities. Much time is spent in these schools giving instruction in many skills—boxing, wrestling, fencing, apparatus—that in actual practice, are seldom used in public schools; some because they should not be used and others because they are not readily adaptable to large groups. Each teacher enjoys teaching what he or she does the best and it is too often found that they are teaching their "major interest" to the exclusion of all else. I have found this true with reference to gymnastics, boxing, dancing, wrestling—in fact all activities. This policy extends also into athletics. The young woman who was a member of the basketball team in college is making it very difficult, in many instances, to discontinue or curtail interschool competition in this field.

We should make full use of all facilities that are available and that will add to the value of our program. For example, many school districts provide adequate shower facilities for girls only to find that they are not used. If space permitted, I could cite many similar instances of failing to use facilities that are necessary parts of a successful program.

Thinking in terms of educational achievement in the field of physical education, we are making remarkable progress. It is now generally recognized as an integral and essential part of the educational program—we have taken the gymnasium out of the cellar and the pupils out-of-doors—more time is being provided—our teachers are better qualified not only in the technical phases of the work, but as teachers. Physical education is no longer a subject but a *field* and a rapidly expanding one. Our objectives are becoming clearer and we are emphasizing certain outcomes that are becoming increasingly important. We are measuring achievement as well as ability. If we think of physical education in terms of *health* or of *physical activity* or of *systems*, we have failed to grasp its true significance. As Dr. McKenzie has said, "The shore of physical education is strewn with the wreckage of systems and movements—most of which have failed to survive the death of the founder." If physical education is to be of enduring quality, we must think of its outcomes in other terms than those of systems or of activity alone. The subject matter of instruction must be so adjusted that it will lead to the realization of social needs and purposes, and a method must be found whereby what we are teaching shall function more adequately in the social and character development of the individual child. To quote from the address of Dr. Hutchinson before the British Medical Association at Winnipeg, "We hear catch phrases about 'a nation's health is a nation's wealth'; 'Health is the country's greatest asset'; but I say that character is the nation's greatest asset." No other field of education offers more opportunities for character development than does physical education.

I am not an apologist for the abuses which have crept into the administration of interschool athletics. Our state high school athletic associations and the national association are doing much to eradicate many of them. One of the most significant is the recent action of the national association in opposing national basketball tournaments. Nevertheless, there is still much to be done. The general public, those who are supporting athletics through paid admissions, is not concerned particularly with educational objectives. Their knowledge of athletics is gleaned from the newspaper and by attendance at games. Their interest is in the winning of teams and the so-called star athlete on the team. Because of this interest of the sports-loving public, our students and school men have permitted themselves to become too much concerned with athletic supremacy.

The standard of measurement is *winning* athletics. We have failed to appreciate the fact that athletics, if properly organized and directed, has a very definite and worthy contribution to make in the education of the individual. The reason for present practices is undoubtedly due to the fact that athletics has come to us as an extra curricular activity and must still depend upon receipts at the gate for its continuance. It has become, in too many instances, solely a means for public entertainment—a student amusement activity—promoted for the entertainment of the general public who know little and care less about educational objectives. They are looking to the school simply as an agent for providing them with the spectacle of athletic competition. They are entirely competent, in their own minds, to give advice and suggestions as to *how* this subject shall be taught, *by whom* it shall be taught, and *to whom* it shall be taught. Looking at the entire problem from an educational point of view, there are three important factors to be considered: first, the participant; second, the school; and third, the general public. I have mentioned these in the order of their relative importance. In practice, however, we have too frequently reversed this order and are giving entirely too much attention to the wishes of outside interests and supporters and not enough attention to the boy or girl participating.

There is one simple guide that should determine whether or not athletics is justified. First determine why you want athletics in your school. Is it because you wish to provide an opportunity for the girl and boy to participate in vigorous competitive games under proper physical conditions and under proper leadership, or is it being offered for its publicity values, to put the school on the map, to be acclaimed champions, or to prepare players for senior high school (as I regret to say is being done in many of our junior high schools)? If it is being promoted for any of the latter reasons, its continuance should be looked upon as questionable.

There is probably no other field in education that offers greater opportunities for real character development than does athletics. For this reason, if for no other, the selection of our coaches is being given more careful consideration. The great need now is for

*(Continued on page 62)*

# The Dance in Physical Education

By

RUTH ST. DENIS

In collaboration with Wm. H. Bridge

DANCING and building are the two primary and essential arts. The art of dancing stands at the source of all the arts that express themselves first in the human person. The art of building, or architecture, is the beginning of all the arts that lie outside the person, and in the end they unite. Music, acting, poetry, proceed in the one mighty stream; sculpture, painting, all the arts of design, in the other. There is no primary art outside these two arts, for their origin is far earlier than man himself; and dancing came first.

That is one reason why dancing, however it may at times be scorned by passing fashions, has a profound and eternal attraction even for those one might suppose farthest from its influence. The joyous beat of the feet of children, the cosmic play of philosophers' thoughts, rise and fall according to the same laws of rhythm. If we are indifferent to the art of dancing we have failed to understand, not merely the supreme manifestation of physical life, but also the supreme symbol of spiritual.

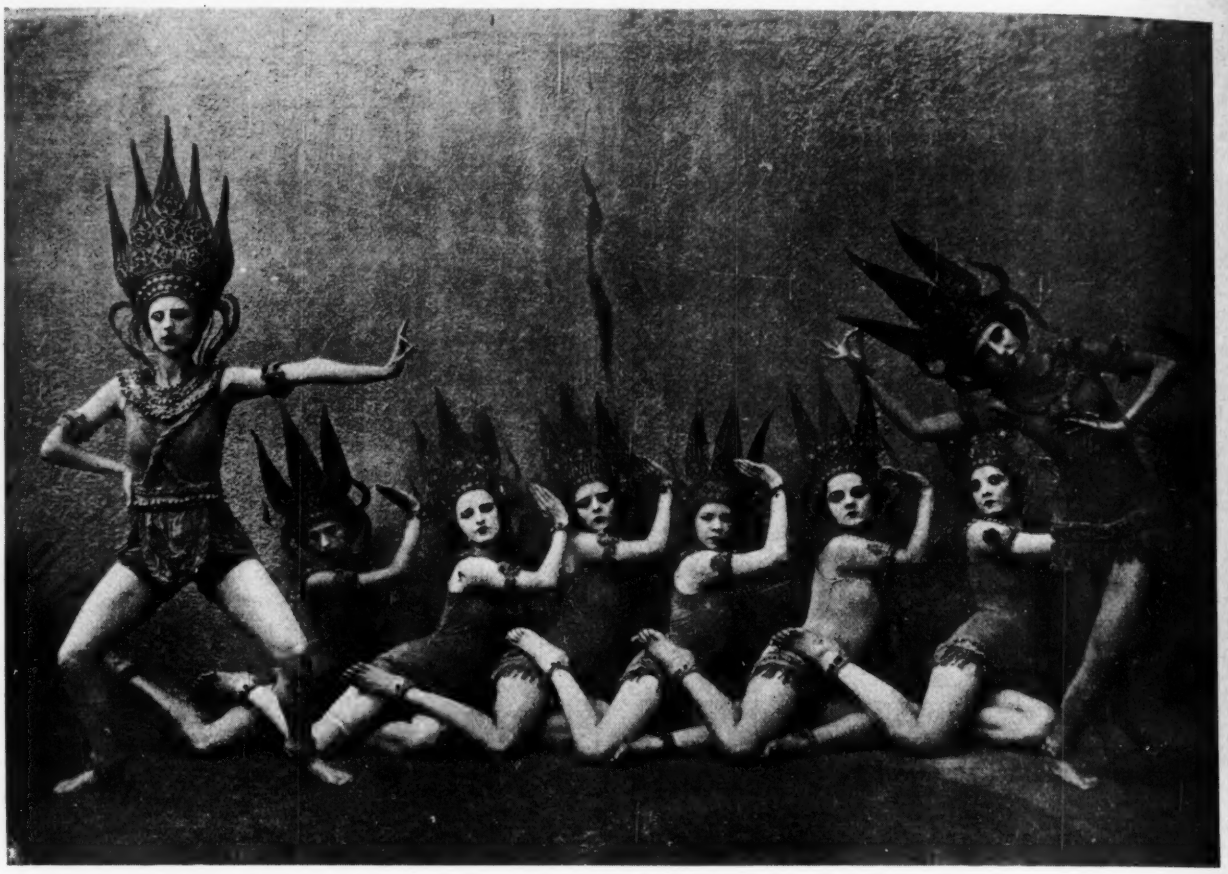
This statement by Havelock Ellis, based upon a broad scholarship and a profound philosophic insight, contains a thought which physical educators cannot well pass by without serious consideration. If we accept as true that dancing is "a supreme manifestation of physical life and a supreme symbol of spiritual," it must needs find a place nearer the center of interest than it has up until now occupied. Dancers who reverence their art lament the fact that in modern times the dance has lost its power and become divorced from its primitive sources. I am quoting Ted Shawn's words, "We have been almost entirely concerned with the dance as a mere pastime, or else theatrically from the standpoint of superficial decorative movement."

I am concerned, in the article, to point out certain basic elements in the Dance pertinent to its value in physical education.

We are becoming more keenly aware of the fact that the body grows in healthy functioning through the kind of exercise which is directly motivated by psychic impulses. Time was when the stentorian voice of the drill sergeant shocking a platoon into goose-step action was supposed to develop control, precision, and by some queer quirk, the qualities of good citizenship. Then athletics held the field, and still do in large measure, and Waterloos were to be won on Eton playing fields.

Psychology has led us to see that the impulse to move may be initiated on various planes: the wild ebullitions of children released from their desk positions into the playground are possibly a psycho-physical necessity, but not particularly conducive of fine results. This horse-play cannot be described as natural movement in spite of its spontaneity because it is a reaction from restricted and cramped conditions. The same motoric energy released through a ball game is an advance upon the chaotic outburst in so far as the game involves certain elements of control, judgment and purpose.

The limitation of the modern athletic practice lies in the fact that there is no means within the cycle of the play for the direction or correction of the muscle effort. It may easily happen that exercises of a repetitive nature will deepen and set an incipient muscle



**Siamese Dance, the movements and costumes are authentic**

fault. The same is true psychically: a timid child suffering some organ-inferiority, thrust into a vigorous group of stronger children will become more discouraged, and unless some new influence is brought to bear to renew his confidence his divergence from the norm will be accentuated. We know, in fact, that many children never fit into the athletic picture because they are structurally unsuited for the competitive element.

Another limitation of both the formal and athletic training lies in the fact that they give little stimulation to the imagination or to the creative impulse. It is true the game calls for certain types of initiative and wariness, for quickness in decision and deception. But there is no place for the sustained projection of created moods or purposes.

However, my purpose is not so much a criticism of these forms of physical education. I rather want to establish a claim for the dance as a method of human development superior to all other inventions.

It is necessary at this point to set down clearly what I mean by the dance, because we have seen in America in the last few years a vast growth in so-called "dance activity," most of it valueless from educational, aesthetic, or cultural standpoints.

I cannot think of the dance in the category of "toe," "tap," "soft-shoe," "jazz," etc., any more than I can think of the noises of electric riveters, motor horns, and factory whistles in the category of Beethoven's Fifth Symphony. True, the riveters and horns are sounds—and so is the symphony. "Tap" is movement—and so was Isadora's "Marche Slave," or Pavlowa's "Swan."

The pity of it is that commercial interests have *sold* the pseudo-dance to the country at large as a thousand other vulgar and harmful commodities are sold. The result is, that nine out of ten persons see and know nothing of the first of the arts. This obscuration is deep and disastrous. It lies largely with the expert physical educator to offset the ill results of the pseudo-dance by promoting the study and use of the great dance. The criticism which many religious leaders and others make against dancing is just, insofar as it is directed towards these unworthy manifestations of the Art, but does not apply to the Art as we are interpreting it.

The peculiar value of the dance arises from the fact that the movements it projects in endless variety and in every degree of dynamism are motivated from within and express rhythmic patterns which are innate in our being and form a language overleaping the boundaries of race and nation. . . a communication of soul with soul.

I do not know what research has been made as to the exact correspondence of body structure to mental and psychic condition, but from general observation I hazard a guess that there must be a close relation between motion and emotion; that failure or inhibition of

**Greek Rhythms on the patio at Denishawn House**

movement, especially of movements which (so to speak) answer the call of the muscle for action, bespeaks decadence. On the other hand, can we not premise that with the discovery of new and more subtle rhythms and movements, new and fuller experience of life is attainable?

In this connection it is of interest to note the stubborn resistance to variation in activity-pattern offered by the majority of adults, and the painful self-consciousness and "awkwardness" created when such a variation takes place. Is not there also in such cases some less obvious mental and spiritual in-elasticity? I can never divorce the inner-life (social and psychological attitudes, emotions, feeling-states, spiritual consciousness) from its physical manifestation.

In other words, our real progress is registered in terms of our movement in space, and our increasing mastery over the great negation of space-time. All forms of culture may be denoted in that category: mastery in movement of the brush in the hand of the painter, the tools of the sculptor, the vocal apparatus of the speaker, the body of the actor and dancer, indicate progress.

We cannot, of course, communicate, in any language, what we do not feel or know. But in modern times we have used almost exclusively the language of the intellect—speech—to express all states and stages of our consciousness. By so doing we have inhibited and dwarfed the physical and emotional beauty of the self, while the spiritual consciousness has sought entirely other means for its expression, not knowing that dancing in its nobler uses is the very temple and word of the living spirit.

It is largely from this error that the sense of separation between body and spirit has grown. In reality, each individual self creates and governs its own organ of expression, and with this organ its communication with the world.

Let us, therefore, regard the dance fundamentally as a Life Experience; as the primitive and ultimate means of expression and communication. Let us see in the free, spontaneous dance of every child the beginning of the universal language, and the universal art, which, largely unconsciously to himself, grows bodily into words, telling of illusive and exquisite moments of the hidden self; and later flowers into forms of art that will heal the world of some of its artistic sins.

Dancing is the natural rhythmic movement of the body that has long been suppressed or distorted; and the desire to dance would be as natural as to eat or run or swim if our civilization had not in countless ways and for diverse reasons put its ban upon this instinctive and joyous action of the harmonious being. Our formal religions, our crowded cities, our clothes, and our transportation, are largely responsible for the inert mass of humanity that until very lately was encased in collars and corsets. But we are beginning to

emerge, to throw off, to demand space to think in and to dance in.

The question will at once arise as to what form this training should take in the case of children's classes. I can best reply by some account of my Synchoric Orchestra. In this group I have forty children at varying ages who represent, in their dance movements, the voices of an orchestra. Children are given at Denishawn School a balanced technique with the immediate intention of normalizing their movements and their physical growth; and those parts of their bodies which are used for certain types of movement are not developed at the expense of others. It is further the intent, always, of our system that parallel with whatever dances and techniques the student specializes in, such as Spanish, Oriental, or any other particular phase of the dance, he be given a basic training in which control in movement of utmost variety is established by aesthetic and imaginative motivation. It is not enough that the child imitate and obey: he must experience and initiate. Since to live is to move, to live sanely, joyously and with discrimination is to move so. Under such training we are achieving more than physical culture: we are working for life culture, which means the effective integration of the whole physical, emotional and mental organism.

The children of the Synchoric, through working out in specific rhythms the voices of an orchestra—the several constituent groups representing wood, wind and brass instruments—are made aware of the architectonic elements of the composition through both visual and kinesthetic sense. Thus the body instrument is motivated into action, not by crude commands, but by the intricate and subtle rhythms of music and the realization of the harmonic relations involved. If the reader will try to imagine the experience of a violin in a symphonic composition could it suddenly become a conscious being, he may gain an insight into the experience of group-consciousness a child may attain in a synchoric performance and of what it may do in taking the child out of himself and all the pettiness of immature responses, into a splendid and satisfying group experience.

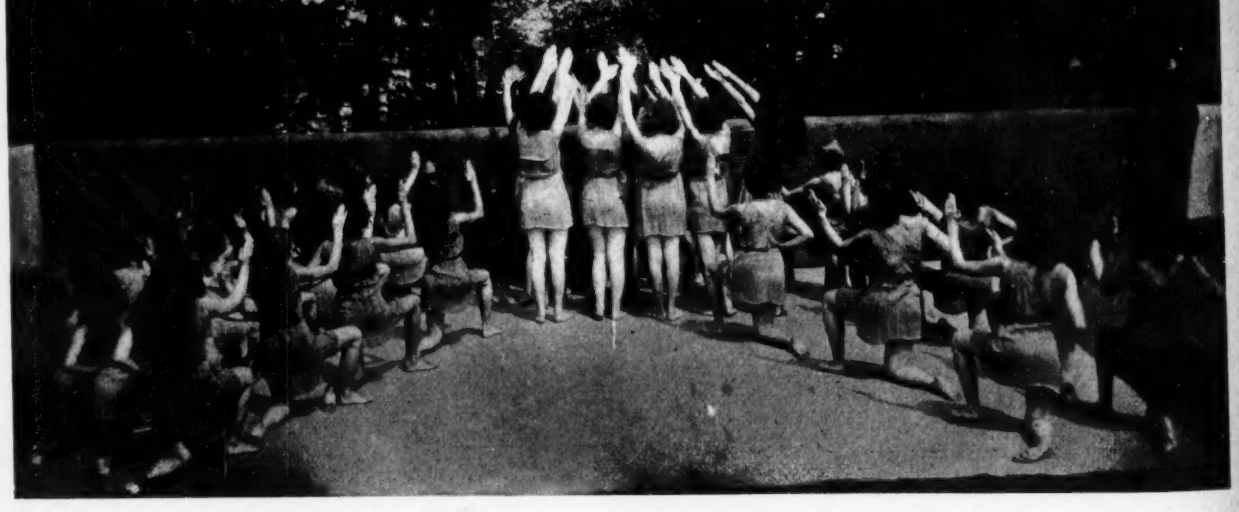
I am frequently asked an opinion as to the value of certain prevailing dance "fads." The rhythmic sense that is developed by "tap," "toe," and "acrobatic" dancing leaves the student at the level of doggerel as far as rhythmic sense is concerned (he never advances beyond this point, with this training only), whereas a normal, balanced training should include the quick footbeat of the Spanish, Oriental, and such rhythms as call for the exact beating, so very easy to attain, but should expand from that to the appreciation of fine music and the variety of rhythm that goes with such music. In a word, perfect co-ordination of the body, response to music, and an emotional appreciation of beauty, are the goals to be arrived at.

A note as to what I mean by balanced technique may be in order. Life-activity calls for certain rhythmic patterns from the earliest years: in the restricted existence of city, school, and home life these patterns are minimized and cramped and many of the deep rhythm impulses which the race history has established, have no source of outlet. Thus, a large part of the muscle system is atrophied through enforced inactivity, and the natural ambivalence of the body (and psychic self) is lost. By a survey of the dances of the great religions and cultures through which our race has passed, we may discover, and recover through activity, many of the beautiful patterns which, as it were, lie buried in our bodily instrument. These old patterns, like the rich cultures of our past, are not dead; and while we must be forever reaching out to new inventions, it is scientifically stupid to neglect the splendid achievements which brought us to our present status.

It is also to be noted that life not only grows richer in experiences through the conscious recovery of a cultural past, but that biologically the organs which that

*(Continued on page 61)*

**Synchoric group on the roof of the Denishawn House; in a movement from the Unfinished Symphony**



# A Health Issue in the School Today

By
**ETHEL PERRIN**
American Child Health Association,
New York City

IF we want children to sing, and to learn how to do it early in life, the school administrator arranges the time schedule to take care of it and the board of education hires a specially trained person to put singing into the schools, and all things being equal and propitious, the trick is done.* No other subject is interfered with, the other specially trained people are not asked to learn to sing or to teach children to sing, it is not even necessary to form a committee or speak to the janitor.

If we want the school to have something to do with children's being healthy, can we follow this same simple procedure? Decidedly not, and yet more and more frequently we hear that the schools have at least a part in this responsibility of keeping the children physically fit.

"Health Work" as it is so often called, has been in our schools for many years, but usually as something apart, the health officers in many places even being on a separate payroll. But these days are over and we now hear of the "integrated health program" suited to the "needs of the whole child." If this is what we want we immediately step into complications. Remember the simplicity of a music program and compare it with the establishment of a really up-to-date health program and see where we are. Just what steps does the establishment of such a program involve? Before deciding upon them, we must consider the following seven points:

A. A real health program lasts twenty-four hours and this necessitates co-operation between home, school and community.

B. The doctor, the nurse, the dentist, all community medical aid, the various clinics—guidance, psychiatric and all—are a vital part.

C. Knowledge of the condition of the children when they enter school at the beginning of the year and every day, is of great importance.

D. The health possibilities of the daily schedule, and the daily health behaviors are a telling part of our program.

E. The attitude toward health, of everyone with whom the children come in contact influences their ways of thinking and behaving.

F. The frequent needs for help in mental hygiene. Even when a child is to all appearances in fine physical condition, if he is unadjusted mentally and socially, he needs help.

G. The children must be taught true and useful facts about all phases of health, in order that they themselves may take initiative in matters affecting their own health, and the health of the community.

If these points are to be covered in the establishment of the health program, it is easy to figure out that no one individual teacher or department in the school can wholly escape responsibility.

But just as nothing, except weeds, flourishes in a garden without a gardener, so nothing of importance in the school flourishes without vigorous nurturing.

And in the health program we have a growing thing of intricate and interesting possibilities, something which needs trained care, sustained interest and attention.

The proper guardian is hard to find. Under a variety of circumstances, different departments and committees, varyingly constituted, have filled the guardianship role of a health education program, as school administrators have worked toward some suitable plan.

The department with which we are concerned today, as a matter of fact the one most often designated as guardian of the health education program, is the department of physical education.

Just why do they pick us for this responsibility? There are several seemingly good reasons. (1) Our professional training includes more of the academic content considered necessary to the teaching of health (if health can be taught) than does that of the other special or general training courses. (2) All children pass through our department at one time or another and for a longer time than in other departments. (3) Health is inextricably tied up with all aims and objectives of physical education. All three of these reasons hold a small amount of logic, and yet can we as

*Paper given at Physical Education Section of Indiana State Teachers Association, October 22nd, 1931, at Indianapolis.

physical educators, and do we successfully, carry on a thorough going health program?

Take the one part of it with which we are asked to begin, the instructional side, usually called hygiene. In our training courses, we studied this subject, some of us more, some of us less, but it was approached from the adult angle—which offers us no clue as to what a child in the first grade or any other grade, should be taught about health, and the only method at our disposal is the same method imposed upon us—text book and lecture. We all remember how we loved it, especially at examination time! No good school of physical education graduates its students without practice teaching with all of its attending observation and detailed criticism. But this teaching is all within the activity field. And yet, particularly nowadays, a young graduate is asked to face large classes of high school students in a course labelled "hygiene," without adequate preparation for the task, and with a predisposition to dislike it. If the physical education teacher is asked to supervise hygiene or health education, whatever it may be called in the grades, she is expected to see to it that the right teachers teach the right subject matter in the right way—again something for which she has had no preparation. And "he" is in the same boat. Then we can justly say that although our training has included academic content necessary to the teaching of courses in health and hygiene we have not had a sufficient amount of the right sort to fit us to give these courses to children.

The second reason, and one that is most convincing to teachers in other departments, is that we have all of the children every school year. This is no reason at all if we are not fitted for the work and furthermore it gives added point to the fact that we have a full time job in our activity program.

The third reason, that health is inextricably tied up with all of our aims and objectives, makes us one of the very strongest possible allies in the health program and this is something we never should forget. But this is not a reason for our assuming the responsibility of the whole program. It is of our many opportunities as teachers of physical education to make telling contributions to a truly integrated health program, that I am going to speak, but first let me clear up the rather pessimistic statements made so far by explaining how the best guardian for the health program might be found.

I gave you seven outstanding points to be considered in the establishment of a complete health program. With all of these points to be considered, who within the school system is both trained and constitutionally able to take the leadership in such a co-ordinated task? It must be someone with the following assets: (a) sincere interest in the health of the pupils; (b) administrative talent which means clear, many-sided thinking and the power of extracting wholehearted co-operation from others—in other words leadership; (c) at least a speaking acquaintance with every side of this complex program; (d) specific training in health education. Such a person may come from anyone of several backgrounds. The following quotations from the Report of the Sub-Committee on Health Education in Secondary Schools of the White House Conference on Child Health and Protection substantiates the foregoing statements:

"These objectives will not be attained if left to chance. The result in that case is a program in which the medical findings reach neither teachers nor parents, health instruction is as varied as the persons giving it, and neither health service nor health instruction in the school take any account of service or instruction given elsewhere. Neither will these objectives be attained by nurses who are already overburdened. Careful plans must be made, administrative machinery set up, and responsibility fixed for the unifying of the efforts of all persons involved in health service or instruction within the school and without. This must include:

a. Giving responsibility and authority to some one person or group of persons in the school for becoming acquainted with all aspects of the health program in the school, for bringing pertinent information to the person who can use it, and for making modifications in program or procedure. Selection of such persons should be made with the idea of reasonably permanent tenure of office in order to prevent loss of efficiency in the development of the program.
b. Recording in permanent form all information regarding the health of individual pupils. This information should be in such form as to be intelligible to and usable by physicians, parents, teachers.
c. Making such records available to all persons having responsibility for pupils.
d. Acquainting the parents with the aims and procedures of the health program, and becoming acquainted with the health practices and standards of home and community.
e. Checking by tests, surveys and observation the progress of the health program.

*Practical Considerations in Organization*

THE ESSENTIAL FACTOR IN EVERY SITUATION IS AN INTERESTED AND WELL-INFORMED PRINCIPAL. The principal knows his school as no one else does and carries authority for all aspects of school life which affect health of pupils or teachers. In small schools he may co-ordinate the health program himself. In large schools he may delegate responsibility and authority to some other person, but his interest and knowledge of the school must be capitalized if the program is to be successful.

APPOINTMENT BY THE PRINCIPAL OF A HEALTH CO-ORDINATOR TO KEEP IN CONTACT WITH ALL PHASES OF THE HEALTH PROGRAM AND TO SEE THAT PLANS ARE CARRIED OUT, HAS PROVED A VALUABLE ADMINISTRATIVE DEVICE. In some schools this person has been named the Health Officer, in others the Health Administrator, in others the Health Counselor. The position is usually a part-time one, one or two periods a day being devoted to the work. The duties of a Health Coordinator demand interest in children on the part of the one undertaking them, an intimate knowledge of the school in which the work is done, and that training in the fundamental sciences which is necessary to an understanding of health problems and the measures necessary to their solution. Many teachers possess qualifications necessary to make excellent health coordinators. Teachers of home economics, physical education, science, and hygiene, have filled the position successfully in various schools." *

In an ideal set up with the properly trained and established person in charge, what is the responsibility of the physical education department in each of the points listed as important?

*Report of the Sub-Committee of Health Education in Secondary Schools of the White House Conference on Child Health and Protection—Dr. Edna Bailey.

A. *A real health program lasts 24 hours and this necessitates co-operation between home, school and community.*

How much of the 24 hour day do we influence? Surely a large part of the leisure time, especially among the younger children. This means that the physical education teacher, whose interest is confined to her daily class periods is missing the point. When we were grudgingly given ten minutes per day in a crowded curriculum, we tried to jump and stretch and run the poor children a sufficient amount, to counteract the evil effects of sitting for the remainder of the school day, which of course, was ridiculous. We had no other aim, unless perhaps we threw in a few specific "posture exercises" and in order to save time we did this business in the school room, throwing open the windows and so disturbing the ventilating system that the thermometer mounted skyward after the windows were closed. Now we know that our chief aim should be so to develop skills, and a love of big muscle play activities, that children will naturally turn to running, jumping, climbing, throwing, and games of many varieties, water sports, hiking and camping. It is our business not only to make them anxious and able to do these things but to move heaven and earth to open up the community possibilities through the co-operative efforts of the homes and all community recreational agencies. If you do not have this co-operation you may as well shut up shop. I once saw the side lines and gallery packed with parents watching a physical education demonstration of the strictest sort of formal type. A stride ball relay race was on, and the lines were long and crowded. As far up the line as the instructor could see, the balls went straight between the feet, but toward the end of the lines they skipped along the quickest route and the audience aided and abetted the children and thoroughly enjoyed seeing the boys make a fool of the earnest old man up in front. Your work must be so worth while that your community as well as your pupils, respect it and cooperate with you in every way to make it a success. You cannot slam the gymnasium door or the playground gate at four or five or six o'clock and call it a day. You must live not only in, but with, your community.

B. *The doctor, the nurse, the dentist, all community medical aid, the various clinics—guidance, psychiatric and all, are a vital part.*

It then becomes necessary for us to acquaint ourselves thoroughly with the resources of our community. We should be ready to help the children make the best possible use of these facilities and to use ourselves the findings from these clinics, which concern our pupils.

C. *Knowledge of the condition of the children when they enter school at the beginning of the year and every day, is of great importance.*

Know the physical condition of every pupil. This means the careful study of records made by physicians, nurses, psychiatrists and teachers. Just when I know not, but you must have some sort of a true picture of at least the problem cases and you must be quick to observe changes. You do not have to be the diagnostician in this ideal health program, but you do have to play your part lest some child goes askew.

D. *The health possibilities of the daily schedule, and the daily health behaviors are a telling part of our program.*

In the matter of environment and daily schedule, again we must not be so engrossed in what we are teaching that we neglect the where and the when. No longer in this integrated health program can we be treated like the stepchild and pushed into the basement and given huge classes of children who do not happen to have anything else scheduled at the time. I know of high schools where the first class to be entered on the child's program is physical education—the activity and the time selected according to his specific needs. These schools are in part, at least, living up to the health objective in the accepted goals of secondary education. Fresh air, sunshine and cleanliness of surroundings are prerequisites for recreation and do not let anyone tell you they cost too much.

E. *The attitude toward health, of everyone with whom the children come in contact, influences their ways of thinking and behaving.*

This is perhaps the most difficult part of the program for us to follow. Our own attitude toward health matters is not wholly portrayed to the children through the advice we give to them, what we do ourselves is more apt to influence them than what we say. We can outline for them the most hygienic luncheon in the world, but if we then run to the lunchroom and make for ourselves a selection of hot dogs, coffee and devils food cake, will the pupils follow our advice or our example?

F. *The frequent needs for help in mental hygiene. Even when a child is to all appearances in fine physical condition, if he is unadjusted mentally and socially, he needs help.*

As a help toward mental and social adjustment, physical education can be very forceful. In discussions of the aims and objectives of physical education, we find some people emphasizing the health values and others the social or character building values. In the present day trend toward consideration of the child as a whole, it is useless for us to try to separate into compartments the effect of big muscle activities. The children who entertained their parents by "putting one over" the referee in the game of stride ball, were bending and stretching and pushing but at the same time they were developing a very poor social attitude.

We all know of many cases of reclaiming the problem cases through the physical education program by turning combative or bossing tendencies into constructive channels—but I wonder if we make the most of our opportunities with the unobtrusive child. It would certainly make us more intelligent teachers if we studied the intelligence quotients of the children and kept in touch with the findings of the guidance counselors and those in charge of the social problems. But

*(Continued on page 54)*

# Blazing New Trails in Education

## The Ann J. Kellogg School Fulfills the Ideal of the White House Conference

From

**W. G. COBURN**

Superintendent of Public Schools

Battle Creek, Michigan

SINCE the formal dedication in November of the Ann J. Kellogg School, newest addition to the public school system of Battle Creek, Michigan, outstanding leaders in the field of education have been hailing it as marking the establishment of definite new standards in public school education and as the first fulfillment of the ideal set up by President Hoover's recent White House Conference on Child Health and Protection.

In pointing the way to how the country may conserve to the fullest extent one of the greatest of its present and future resources — the children who will be the American nation of tomorrow—the White House Conference declared:

"If we want civilization to march forward it will march not only on the feet of healthy children. Beside them, shoulder to shoulder, must go those others—those children we have called handicapped — the lame ones, the blind, the deaf and those sick in body and mind. All these children are ready to be enlisted in this moving army, ready to make their contribution to human progress; to bring what they have of intelligence, of capacity or spiritual beauty. American civilization cannot ignore them."

An appreciation of the true gravity of this national problem may be had from the bare facts that, with a total of approximately 26,000,000 school children for the entire country, there are at a conservative estimate at least 10,000,000 "handicapped." Of these, only 210,802 now are receiving any form of special educational training or consideration.

Thus, at the very forefront among our neglected resources, we have scattered throughout the States more than 9,500,000 who are not receiving any part of the things listed in the "declaration of rights," drawn up by the Hoover Conference, which states that the handicapped child is entitled:

"1. To as vigorous a body as human skill can give him.

"2. To an education so adapted to his handicap that he can be economically independent and have the chance for the fullest life of which he is capable.

"3. To be brought up and educated by those who understand the nature of the burden he has to bear and who consider it a privilege to help him bear it.

"4. To grow up in a world which does not set him apart, which looks at him not with scorn or pity or ridicule but which welcomes him exactly as it welcomes every child, which offers him identical privileges and identical responsibilities.

"5. To a life on which his handicap casts no shadow, but which is full day by day with those things which make it worthwhile, with comradeship, love, work, play, laughter and tears — a life in which these things bring continually increasing growth, rich-

THE WHITE HOUSE
WASHINGTON

Mr. W. G. Coburn,
Superintendent,
Battle Creek Public Schools,
Battle Creek, Michigan.

November 17, 1931.

Dear Mr. Coburn:

The White House Conference on Child Health and Protection brought out clearly the importance of dealing with each child in accordance with his or her capacities or limitations. I am happy to congratulate you upon the dedication of the Ann J. Kellogg School with its program for special training for handicapped children along with normal children, and as a part of the public school system. I note with satisfaction that a generous citizen helped the community in making this school possible. It can, and I trust will, set an example in the handling of these children who need more than the usual amount of care and attention.

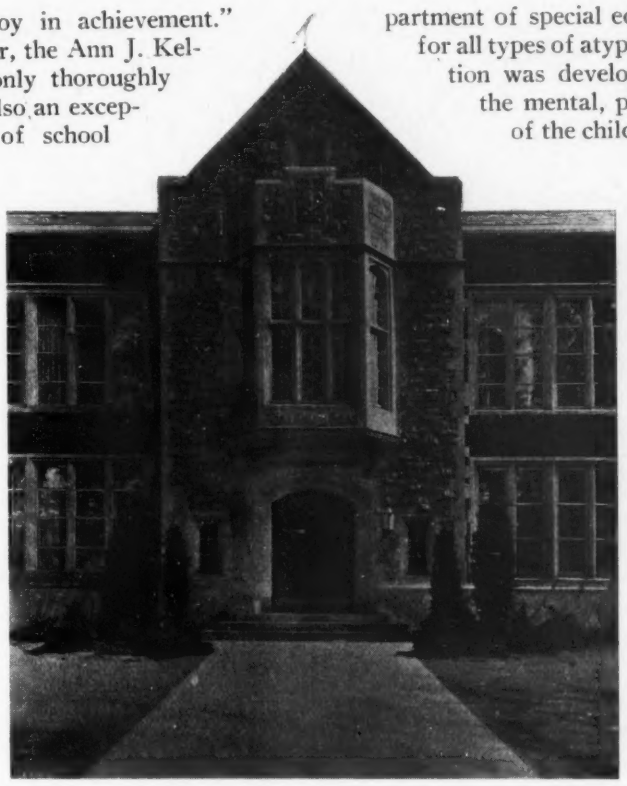
Yours faithfully,

(Signed) HERBERT HOOVER.

ness, release of energies, joy in achievement."

Despite its unique character, the Ann J. Kellogg School, which is not only thoroughly modern in construction but also an exceptionally beautiful example of school architecture, is now a regular unit in the public school system of this city.

That Battle Creek has been able to take the lead in following up this work of the White House Conference is due in large measure to the life-long interest in the problems of child welfare of Mr. W. K. Kellogg, president of the cereal industry that bears his name. As a result of his sharing with the Board of Education the costs of construction and his arrangements for financing those expenses not borne by the State's provisions for handicapped children, the school places no additional burden on local taxpayers.



*An appreciation of the architectural beauty of the Ann J. Kellogg School may be obtained from this view of the principal entrance.*

The school has been named, appropriately, in memory of Mr. Kellogg's mother, Ann J. Kellogg, who was one of Michigan's highly esteemed pioneer teachers and whose children and grandchildren attended the old school that formerly occupied the same site.

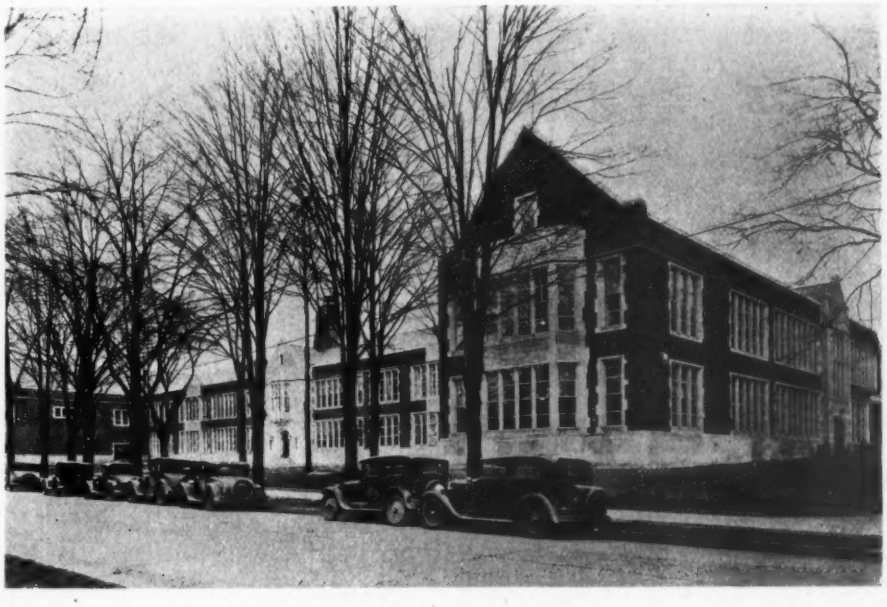
Pleasantly situated on one of the shaded residential streets, the Ann J. Kellogg School is divided into three departments. Two of these, the elementary and junior high, were organized for normal children and include the greater percentage of the pupils enrolled. The third is a department of special education.

### Scope of Program

Organized around, and coordinated with, the two departments for normal children is a department of special education designed to provide for all types of atypical children. This organization was developed to make an analysis of the mental, physical and emotional status of the children, to eliminate or minimize their handicaps in so far as possible, and to assist them in the discovery of their respective interests and aptitudes.

Adjusted program classes are provided for those pupils who experience difficulty with the academic phases of the regular class work. A special attempt is made to discover their outstanding aptitudes and abilities. The curriculum is not merely an abbreviated form of that used for the rest of the school, but is definitely selected on the basis of its present and future value in the lives of these boys and girls.

A seventeen-year-old Bulgarian girl who recently enrolled in one of these classes had never attended any school, either in America or her native country. Due to partial deafness and the lack of knowledge of the English language, her parents had never permitted her to go any place unaccompanied. Naturally, her lack of social contacts and her inability to read or to hear so closed the outside world to her that her apparent retardation was greatly accentuated. That was four months ago. Today she is one of the happiest pupils enrolled in the school, because she is experiencing the thrill of associating with others, of assuming certain responsibilities for herself, and of definite intellectual achievement. The work being done for her this semester will be supplemented



*General view of the Ann J. Kellogg School, the first public school in the country to meet all the ideal specifications drawn up by President Hoover's recent House Conference on Child Health and Protection.*

*Sunshine treatments or heliotherapy is furnished in this well equipped solarium of the Ann J. Kellogg School. The light is radiated from four special sunshine carbon arcs and is so filtered that upon reaching the child eight feet away it is as near normal sunshine as it is possible to obtain artificially.*

next by speech correction and lip reading, and there is every reason to believe that her present achievements are only a beginning of her progress.

### Social Adjustment Classes

Home environment and physical health of children are important factors in their mental health and consequent social adaptability. Pupils who are unable to adjust themselves to life in a sufficiently satisfactory manner are placed in social adjustment classes. The program is designed to correct the maladjustment and to get them back into the normal groups as quickly as possible. The value of the work is demonstrated in the finer qualities of citizenship acquired by these pupils.

The lowered vitality groups are placed in open-air classes. Anemic, underweight, and malnourished children form a large percentage of the enrollment. They are provided with rest, milk, cod-liver oil, "sunshine" treatments and suitable physical exercise. They work and rest in rooms that are always at a temperature of 60 degrees. One boy made a net gain of eleven pounds over his original weight in eight months, in spite of a temporary illness and loss of five pounds during that same period. Another interesting case is that of a little eight-year-old girl apparently suffering from neurotic disturbances, all of which were easily corrected through mental hygiene and a change of diet.

### Hydrotherapy For Orthopedic Children

The orthopedic section of the special education department is the most extensive of any on account of the equipment and personnel required for its administration. The hydrotherapy room is equipped for warm water treatments, and whirlpool and brine baths. The warm water pool is kept at 95 degrees Fahrenheit and is used for the re-education of paralyzed muscles. The buoyancy of the water supports the child sufficiently to make exercise much easier, and the heat stimulates circulation and assists in relaxation. The use of the whirlpools is equivalent in effect to a general massage.

The psychology involved when children find that they can use their muscles in many ways that are new to them plays an important part in their progress.

### Physiotherapy and Physical Therapy

Lamps and bakers are used in the physiotherapy room for re-education of muscles by heat and massage.

The physical therapy room is equipped with such apparatus as a punching bag, stall bars, spastic ladder, and mats. The room is used for corrective physical exercises.

The work in occupational therapy supplements that in physical therapy. The purpose is to provide therapeutic exercises that will be interesting as well as beneficial. It includes units in such work as sewing,

*The "Gingerbread House" in the kindergarten suite of the Ann J. Kellogg School. Two kindergarten rooms are separated by this house, which presents another type of architecture to the opposite room. The lower floor of the tiny house is used for a shop and workroom and the upper forms a playhouse.*

weaving, cooking, clay modeling, typing, printing, woodwork and basketry.

Sunshine treatments, or heliotherapy, are furnished in a well equipped solarium. Reclining cots are arranged in a circle below the source of light. The light is radiated from four special sunshine carbon arcs and is so filtered that upon reaching the child eight feet away it is as near normal sunshine as it is possible to obtain artificially.

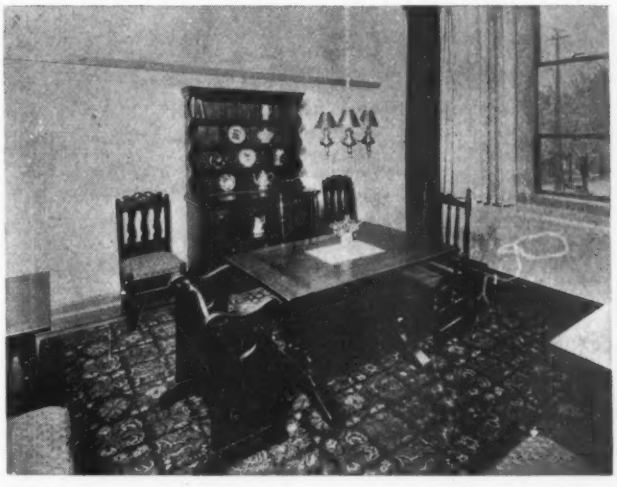
### Orthopedic Surgery

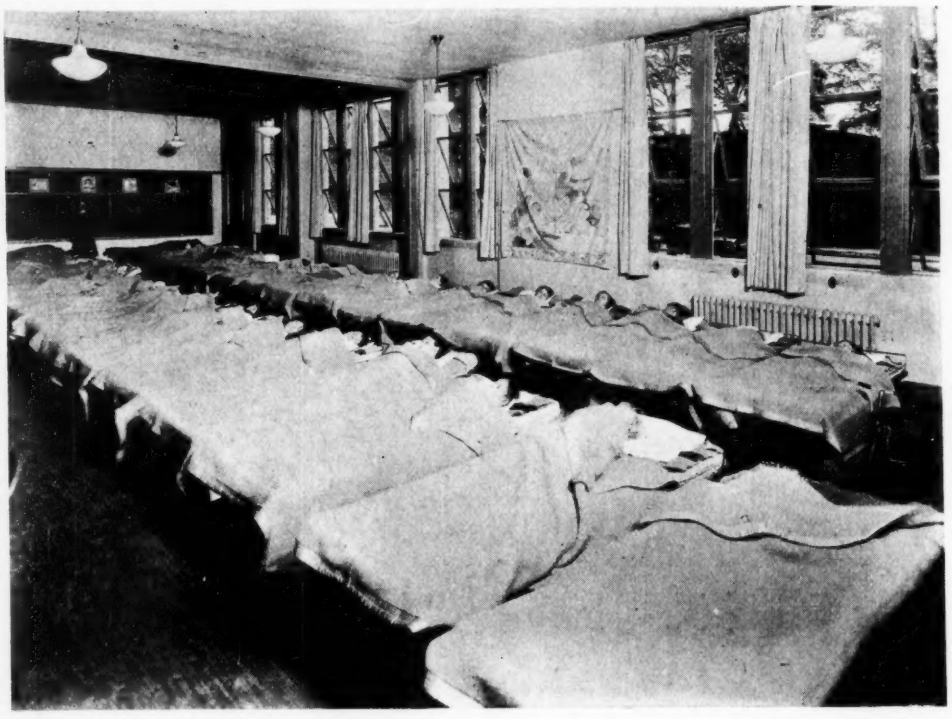
Before dismissing the discussion of this particular phase of special education, acknowledgment should be given to the work of the orthopedic surgeons. There is a little girl who was born with a congenital dislocation of the right hip. An operation, followed by submission to a plaster cast and later to a brace, has made normal walking nearly possible through the additional aid of sole and heel lifts. Another came to school walking on the toes of her right foot and carrying her arm in a bent position. An operation to lengthen a muscle in the back of her leg and the placing of her arm in a cast to straighten it have marvelously changed her appearance. With a little diligence on her part she should be able to approximate perfect physical condition within a short time, and be nearly like the normal children.

### Sight Saving

Proper eye hygiene and conservation of sight are the objectives of the sight-saving classes. Equipment used for this sort of work includes heavily outlined maps,

*A model dining room furnished with replicas of historic New England furniture. In this room, the girls of the home economics classes serve meals, set the table and learn the role of gracious hostess, giving them practical experience in this branch of home-making.*





*Sleeping room for children with lowered vitality. Most of the pupils of the Ann J. Kellogg School come to this room at some time near the noon hour for an hour's sleep, once a day.*

twenty-four point textbooks, large black lead pencils, and paper of wide spaced ruling. To eliminate glare, the blackboard is tilted and the desks are of dull finish. No pictures, nor anything including detail or likely to cause eye strain, are used. Blind children and those whose vision is becoming worse as cases of progressive myopia (nearsightedness), are taught to read Braille, printing for the blind.

Children who are so deaf that they are handicapped in attempting to carry on ordinary conversations are taught profile lip reading. Congenitally deaf children are, of course, taught to do the same and also to speak. This is painstaking work and requires special technique to develop in them the ability to use properly the various organs of speech and produce sounds which they themselves have never heard before.

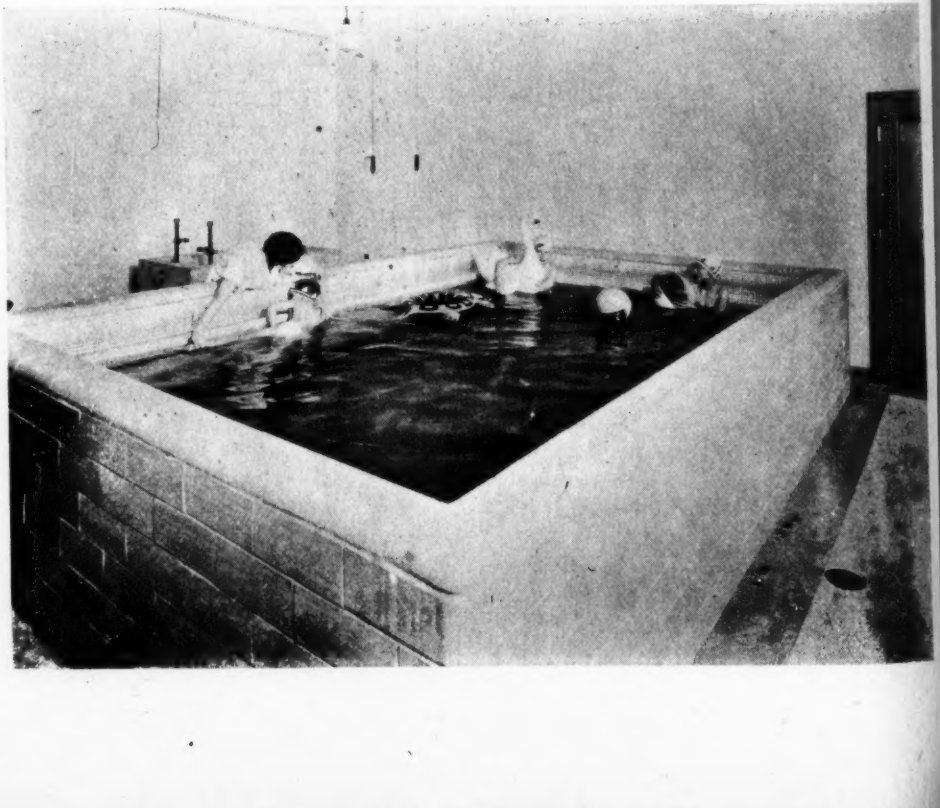
Speech correction classes have been included for those with such defects as lisping, stuttering, stammering, and cleft palate.

### Major Work Groups

Especially gifted children often find the ordinary school work very monotonous. As a rule, these pupils are capable of carrying a greatly enriched program with no more effort than is required of the ordinary child to do the work of the regular grades. Organized into major work groups, these pupils can learn to do dramatic work in foreign languages, creative work in music and art, and elementary experiments in science, at very early grade levels. They also learn to assume an initiative and responsibility that is compatible with their natural endowments.

With so much devoted to the special education department it may appear that the normal child has been quite forgotten. Such is not the case. All children of the school can avail themselves of the advantages of a well-equipped gymnasium, solarium, shop rooms, cafeteria, dramatics room, and library, and all are served alike by a supervisor of health, a nurse, a dentist and a director of pupil adjustment. *(Continued on page 60)*

*Hydrotherapy treatment at the Ann J. Kellogg School for children suffering the effects of infantile paralysis. This has proven effective elsewhere in the treatment of these children. The water, warmed to an exact temperature, relaxes the muscles while its buoyancy supports the body and permits the exercise of muscles that otherwise are lifeless.*



# Physics Applied to Physical Education

By

THOMAS K. CURETON, JR.

Professor of Applied Physics and Mechanics
Y. M. C. A. College, Springfield, Mass.

### Physics Related to Physical Education

THE teaching of physical education is dependent to a great extent upon the natural physical laws. It is the purpose of this paper to outline some of these relationships in a brief way and to show why professional students in physical education should receive better training in physics than is now given in most physical education professional schools. Lastly, the development of these courses at Springfield College will be described. The significance of the thought in this paper will be apparent because it comes at a time when there is much discussion as to what a professional curriculum in physical education should contain.

Applications of physics to physical education may be grouped into six major divisions:

1. The fundamental principles of physical measurement applied to measurements in physical education.
2. The measurement of physical weather conditions.
3. The physical properties of materials and of the therapeutic agents.
4. Physiological physics.
5. Mechanics of the body and of bodily movement.
6. Elementary engineering problems related to the construction of the physical education plant.

### Relationships of the Fundamental Principles of Physical Measurement

In any consideration of the fundamental principles of physical measurement it is necessary to take note of:

1. Quantities to be Measured.
2. The Units of Expression.
3. Instruments and Their Mechanical Principles of Operation.
4. The Validity of the Measurements.

It is commonly said that all physical measurements may be reduced to the measurement of the fundamental quantities of length, mass and time. The ways and means of measuring these three fundamental quantities are basic to all work in objective measurement. With training therein, students of physical education may lay a background for all types of scientific measurements. *Physics is the fundamental science of objective measurement* and measurements in every scientific field depend upon physical measurements. The status of physical education would ultimately seem to depend upon the definite relationships to health and physical efficiency which can be demonstrated. The importance of this problem would seem to make all others diminutive. Only a small per cent of the professional physical education students will be able to do comprehensive research work. However, there are multitudinous advantages for a fundamental basic course in the principles of physical measurement. Dimensional measurements are encountered on every hand in physical education work, including track and field measurements, anthropometrical measurements, and the plotting and laying out of athletic field areas on the field or in the gymnasium. Physics would include elementary surveying knowledge of a practical nature involving some applied geometry. Measurements of force (or pressure) and mass are also widely encountered. Dynamometry, or the measurement of muscular strength, is of great importance in some instances in body building work and athletic efficiency research. Weight, blood pressure, expiratory and inspiratory force of the lungs (similar to Flack's test) are measurements also based upon these fundamental concepts.

Timing offers one of the most lucrative fields of investigation and is one of the most fundamental means of grading achievement. From the officiating point alone, the errors and their significance involved in timing with a stop watch are important and rather poorly understood. How accurately can a timer time a 100 yard sprint race with a stop watch? Is the forefinger or the thumb best to push the watch-stem? What is the value of the errors due to starting the watch on the smoke or sound rather than the flash? How nearly does the average timer guess correctly just when the runner strikes the tape? These are questions which few officials can answer with accuracy. Yet, in a 100 yard race in 10 seconds an error of 1/5th of a second means that the runner reached the tape just six feet before the watch indicated that he did, or that he was six feet away when the watch recorded that he had finished. This error is very *significant* and the whole matter of testing and measuring time intervals is primarily a matter of physics. The answers to these timing questions have been solved in the physics classes at Springfield.

Certainly one of the most fundamental phases of training in physics is practical knowledge about calibrating the common types of instruments used in physical education work and methods of applying elementary statistics to evaluate the errors. These are common procedures of the physics laboratory. Several writers have summarized the types of measurements

to be made in physical education.[1,2,3] The entire program of experimental research would seem to be based upon the facility of the research worker to make careful objective measurements.[4]

### Relationships of the Physical Weather Conditions

The physical weather conditions are recognized to have a marked relationship to health and athletic performance. Temperature, atmospheric pressure, relative humidity, wind velocity, and sunshine may all be important under certain conditions. There is a real need for more definite correlations in this field.[5,6,7] It is apparent that every physical educator should be well trained in making these measurements and knowing their significance.

### Relationships of the Physical Properties of Materials and of the Therapeutic Agents

From the standpoint of the camp counselor it is helpful to know the relative weight, strength, elasticity, and durability of the various woods and certain other materials. This knowledge is very useful at times, such as in the making of paddles or shelters. Such information is invaluable in the laboratory for building instruments of measurement. It is then necessary to know many other physical properties, i.e., conductivity, malleability, permeability, contractility and others. The basis of therapeutic work lies in the fundamental properties of water, air, heat, light, and electricity.

Specific heat, viscosity, penetrability, absorption, osmosis, capillarity, vapor tension and others are fundamental properties encountered. To be without specific knowledge of nature of these properties results in a very unsatisfactory situation in more advanced courses in physiology and therapeutics. The constant request from the physiology department is that students be better prepared in these basic fundamentals.

### Relationships of Physiological Physics

Physiological physics may be a broad term. On one hand it may mean the entire application of physics to the body. *Here* it is used to mean the application of physics to certain mechanical features of the body tissues and organs. In addition to the physical properties of the tissues and organs, such as, density, specific gravity, tensile strength, etc., the physics of sight and related light phenomena, the physics of hearing and related sound phenomena, the physics of circulation and respiration involving the behavior of fluids and gases are of great consequence for understanding in detail aspects of the physical examination. The relationships to physiology are evident.[8]

### Relationships of Elementary Mechanics

The analysis of any movement, in the gymnasium, on the athletic field, or in the pool, involves the fundamental principles of mechanics. Scientific coaching and scientific pedagogy of the physical education activities would seem to rest squarely upon these laws. Mr. Affleck,[9] in a recent paper before the Society of College Physical Directors, has pointed out forcefully that the production of energy and force is primarily *chemical* in nature, *but the application of this to do efficiently useful work* is primarily a matter of applied physics of which mechanics is a part. Much more work needs to be done in analyzing the bodily movements. Some studies have already yielded fruitful results.[10,11,12,13]

An understanding of the fundamental laws of mechanics leads also to the deeper appreciation of body mechanics including the movements, the efficiency of the parts as weight bearing structures, and the intimate details of directing muscular force into useful action. Borelli,[14] Marey,[15] Demeny,[16] and Haughton,[17] are among the leading writers in this field; however, there are many others including the German writers Fick, Braune, Fischer and the Weber brothers, E. Weber and W. Weber. These men have founded the science of kinesiology in relationship to mechanics.

Knowledge of leverage is always useful. It has hundreds of applications to athletic sports. The postural levers are of the first class while the levers of locomotion, involved principally in walking, running, jumping, and swimming, are of the third class. The former are levers of equilibrium and the latter are levers of speed rather than of mechanical advantage. Force levers of the second class are almost unknown in the body.

Fundamental concepts of balance and equilibrium in any position or on any piece of apparatus or in the water depend upon the laws of gravity and equilibrium. The location of the center of gravity determines the form or correctness of execution of exercises to a large extent. It explains why women are different from men in their ability to do certain exercises. It explains why a one-legged man can be a wonderful parallel bar performer. The laws of equilibrium applied to canoeing demonstrate exactly why a person may fall out of a canoe. There are many other applications. Fenn,[18] at Rochester, has shown the fundamental importance of the center of gravity in running.

---

[1] Wayman, Agnes, "What to Measure in Physical Education," Research Quarterly, American Physical Education Association, May 1930, pp. 97-110.
[2] McCurdy, J. H. "Measurements in Physical Education of Service to Superintendents, Principals, Teachers," Am. Physical Ed. Rev., May 1928, p. 316.
[3] Cureton, T. K. Jr., "The Stop Watch Method for Testing the Efficiency of Speed Swimmers," Beach and Pool, Feb., 1930.
[4] McCloy, C. H., "Methods of Research in Physical Education," Am. Physical Ed. Review, Jan. 1929, pp. 10-15.
[5] Berry, F. C., "Relation of Humidity and Temperature to Loss of Weight During Exercise," thesis, Springfield College, 1912.
[6] Lee, F. S., "The Effects of Temperature and Humidity Upon Fatigue," Am. Journal Public Health, Nov. 1912, p. 863-70.
[7] Hickox, E. J., "Comfortable Air in the Gymnasium," thesis, Springfield College, 1914.
[8] For many useful applications, see "Physiological Physics," J. McGragor-Robertson, Henry C. Lea's Son & Co., Phila., 1884.
[9] Affleck, G. B., "Some Aspects of Neuromuscular Control," Research Quarterly of the Am. Physical Ed. Assn., March, 1931.
[10] Karpovich, P. V., "Swimming Speed Analyzed," Sc. Am., March, 1930, pp. 224-225.
[11] Kling, Dr. Erich, "Und doch Ballenlauf," Die Leibesubungen, Berlin, Jahr., 1925, pp. 61-67.
[12] Pettigrew, J. Bell, "Animal Locomotion," New York, 1891.
[13] Marey, E. J., "Animal Mechanism," N.Y., 1887.
[14] Borelli, "De Motu Anamalium," Rome, 1680.
[15] Marey. op. cit.
[16] Demeny, Georges, "Mecanisme et Education des Mouvements," Paris, 1904.
[17] Haughton, Samuel, "Principles of Animal Mechanics," London, 1873.
[18] Fenn, Wallace O., "Work Against Gravity Due to Velocity Changes in Running," Am. Jour. Physiology, June 1930 and April 1930, "Frictional and Kinetic Factors in the Work of Sprint Running."

Recent work at Springfield[19] has pointed out the relationships to swimming. Demeny, years ago, pointed out the relationships to posture.

The legs and arms in walking have been demonstrated to act practically in accordance with the laws of the pendulum as studied in physics. A man performing on the horizontal bar may likewise be considered a human pendulum. Dr. E. Kohlrausch,[20] of Germany, has pointed out many of these interesting relationships. They would seem to be invaluable to a teacher of gymnastics. Dr. Kohlrausch applied many of the mechanical principles to the work of the German turners.

A runner while running around a curve on a track or a hammer thrower throwing the hammer are influenced by centrifugal force. Movements which tend to defy the demands of this force are less efficient. For instance, it has been demonstrated practically and computed theoretically, in the physics classes at Springfield, just where a man of given weight should run on the indoor running track to attain most efficiently the maximum speed. The force required to hang on the bar in a giant swing has been obtained in the same manner. It may even be possible to test a gymnast to see if he had strength enough in the hands to hang on the bar while revolving. Slow motion pictures have aided in these studies to determine the velocity of the center of gravity about the bar.

Buoyancy in the water while swimming follows the basic laws as propounded by Archimedes many years ago. Water pressure on the body or upon the breathing box can be computed in accordance with the laws of Pascal.

Locomotion studies are of great importance in physical education and in the field of athletic competition. Running, swimming, canoeing, boating, cycling, etc. form the largest division of activities. These can only be efficiently performed when the mechanical laws related to them are correctly followed. Newton propounded the principles of these laws. The mechanics of these activities involve concepts of propelling force, inertia, resistance, velocity, and acceleration. A. V. Hill,[21] in his study of the Cornell runners, cleared up many of these relationships for running. Recent studies have aimed to do the same thing for the mechanics of swimming.[22,23] These studies involve the efficient application of energy to do useful work and the development of maximum power. These terms are of great consequence to every coach or physical director.

### Relationships of the Elementary Principles of Building Engineering

Engineering of any type is a branch of applied physics. Electrical engineering, mechanical engineering, heat engineering, civil engineering, and architectural engineering, are all branches of engineering with which the physical director has some contact in planning the physical education plant. It is of great advantage to have an elementary understanding of heating, ventilating, lighting, plumbing, surveying, and building construction. Quite a few years ago extensive ventilating studies were conducted on the Springfield gymnasium plant.[24]

### General Professional Need

Strange to say, in spite of the many intimate relationships pointed out in this paper, and space has limited the expansion of many of these, physics is a course receiving inadequate attention in the professional physical education schools of this country. The committee report on the curriculum of the 139 institutions of college grade preparing teachers of physical education,[25] contains the statement that 86.2% of the men's colleges and 90.0% of the women's colleges require no work in physics. Attainment in advanced courses is surely dependent upon the basic foundation. Dr. Griffith[26] has well outlined a plan for a laboratory for research in physical education, which is an excellent scheme, but research itself depends quite a bit on the background in physics. It is a fair guess to say that research will develop in physical education in direct proportion to training offered in physics. There are some obvious difficulties but these can be overcome by teachers with initiative and with training in both engineering and physical education. In closing, the writer would like to give a quotation from Dr. Kohlrausch's splendid little book:

> "It is required that a physical director must know the limits of movements and the difficulties of exercises in relation to the anatomical construction of the body. It is also essential that he know the effect of natural powers and their laws. Only with such knowledge is a teacher able to point out the faults and difficulties in an exercise to his students and thereby be capable of performing scientific and constructive teaching. The teaching of the anatomical construction of the body is the work of the doctor, while the teaching of the influence of the natural laws and powers of nature is the task of physicists." Kohlrausch (1887.)

The work of applied physics is being developed at Springfield College, Springfield, Massachusetts, by means of two courses: one is a basic course for freshmen and the other is intended primarily for graduate students, although some qualified juniors and seniors are admitted. The elementary course has as its aim a general background in physics applied to physical education. The advanced course aims to review rapidly the theoretical material and to devote the major portion of the year to the solution of selected projects. The greatest majority of these are original topics upon which there has been relatively little, if any, investigation.

---

[19] Cureton, T. K., "Objective Tests of Swimming," thesis, 1930.
[20] Kohlrausch, Dr. E., "Physik des Turnens," Lion, 1887.
[21] Hill, A. V., "Muscular Movement in Man," New York, 1927.
[22] Cureton, T. K., "Mechanics of Swimming—The Crawl Armstroke," Beach and Pool, May 1930, pp. 57-62.
[23] Cureton, T. K., "Mechanics and Kinesiology of the Crawl Flutter Kick," Research Quarterly, American Physical Ed. Assn., Dec., 1930, pp. 87-121.
[24] "Ventilation Studies at the International Y. M. C. A. College," reprinted from the American Physical Ed. Review, Dec. 1913, pp. 1-60.
[25] "Report of the Committee of the Curriculum of the 139 Institutions Preparing Teachers of Physical Education in the United States," 1929, J. H. McCurdy, Chairman, p. 4.
[26] Griffith, Coleman R., "A Laboratory for Research in Athletics," Research Quarterly, American Physical Ed. Assn., Oct. 1930, pp. 34-40.

The Journal of
**HEALTH and PHYSICAL EDUCATION**

Published by the
AMERICAN PHYSICAL EDUCATION ASSOCIATION
at Ann Arbor, Michigan

**E. D. MITCHELL, Editor**

Contributing Editors

| | |
|---|---|
| Mr. George B. Affleck | Mr. C. H. McCloy |
| Miss Ethel M. Bowers | Mr. N. P. Neilson |
| A. D. Browne, M.D. | Miss Ethel Perrin |
| John Brown, Jr., M.D. | Mr. Lory Prentiss |
| William Burdick, M.D. | Dudley B. Reed, M.D. |
| Miss Rosalind Cassidy | Frederick Rand Rogers, Ph.D. |
| Mr. Frederick W. Cozens | Mr. James Edward Rogers |
| Percy M. Dawson, M.D. | Miss Mazie Scanlan |
| Miss Ruth Evans | Mr. Carl L. Schrader |
| Miss Mary E. Gross | Mr. Louis C. Schroeder |
| Mr. Strong Hinman | George T. Stafford, M.D. |
| Mr. A. S. Hotchkiss | Mr. Randall D. Warden |
| Allen G. Ireland, M.D. | A. P. Way, M.D. |
| Charles H. Keene, M.D. | Jesse F. Williams, M.D. |

Vol. III JANUARY, 1932 No. 1

**Anniversary of Boy Scout Movement**

BOY Scout Week, marking the twenty-second anniversary of the Boy Scout Movement in America, is to be celebrated throughout the United States by 883,695 Scouts and Scout Leaders from February 7th to 13th, 1932. In the advance announcements of this anniversary occasion, great stress has been placed on the fact that *character development* and *citizenship training* are the real objectives of the Scouting movement. In emphasizing these serious aims, however, care is taken not to forget that "Scouting is a great game." These, the words of the founder, Lord Baden-Powell, epitomize the program of this youthful social movement which utilizes the legends of knighthood and chivalry and the lore of the plainsman and Indian to provide a leisure-time game in which boys "learn by doing."

Such a leisure-time program is definitely educational. It inculcates character by engaging the leisure energies of boys in outdoor games and activities of cultural and practical value. By combining wholesome, attractive, outdoor activities with the influence of the Scout Oath and Law, and with tests that hold the interest of the boy under purposeful leadership, the objective of character is kept ever foremost.

The Boy Scout Movement continues to make progress and each year introduces innovations. Its Cub program is a new development of the last year which is rapidly growing and already has a membership of over 25,000. It provides an original program for boys 9 to 11 years of age. In recent years, too, the program has been most interestingly developed for rural boys. Under the leadership of the Rural Scouting Service, plans have been developed by which boys may join farm or home patrols, practice Scouting in all its features, enjoy a Merit Badge Vocational Program particularly adapted to farming needs, and advance step by step through scout ranks. With provision for proper leadership, the Scout program also meets the needs of Lone Scouts, boys who for one reason or another cannot become members of Scout Troops or Patrols. The versatility of the Boy Scout program is also demonstrated in its Sea Scout service, by which medium the lure of the sea and its finer traditions are being preserved for boys of fifteen years of age and upwards.

Certain of the projects of Scouting have distinct bearing on social welfare programs. Today, with unemployment conditions making economic distress so prevalent, the scouts have been active in assisting organizations engaged in relief work. Moreover, their more than six hundred permanent camps established over the countryside not only provide outdoor vacations to thousands of boys from homes of limited financial resources, but also serve the important purpose of bird and game refuges and, where there is sufficient land, of permanent forest preserves. The fact that the Boy Scout movement is world-wide has caused it to be described, because of its common aims and purposes, as a potential factor for the peace of the world.

Scouting and physical education are closely allied. Many of their objectives are identical. A large proportion of physical education teachers are actively serving—or have served—as scout masters, as members of troup committees and local councils, and as merit badge instructors. In many of the colleges and universities, the training in Scouting is a regular part of the physical education course. Many scout masters are members of the American Physical Education Association and are active in its councils. One of the objectives of the Association as stated in its platform and approved by the White House Conference is "Opportunities for scouting and campcraft." Because of these mutual interests, the birthday of the Boy Scout Movement is of especial interest to all physical educators.

**Schoolbook Piracy**

IN order to call attention to a discreditable practice which seems to be prevalent at the present time, and to which a number of our publishing firms have objected, we take the liberty of quoting extracts from an editorial in the *American School Board Journal* entitled "Something about Schoolbook Piracy." The situation is briefly summed up in these paragraphs:

"The work of an author usually implies originality, research, and literary skill. In recognition of the fact that a service thus performed constitutes a contribution to the cause of civilization, the several countries of the world encourage authorship by distinguishing its products as property which is entitled to the same measure of protection accorded to all other forms of property. Thus the copyrights issued by governments covering books and magazine literature, plots, plays, engravings, becomes certificates of ownership, established by custom and law, and internationally observed.

"Yet the invasions upon the rights thus established occur only too frequently, either in the form of outright plagiarism, or some form of altered reproduction.

"The violations of the copyright law have manifested themselves in the school field of this country in a somewhat peculiar way. . . . .

"A representative of an educational publishing house

recently presented a copy of a new book to an instructor with a view of securing its adoption in the particular school. The instructor pronounced the book as being wholly unsuited for his class. He explained that he had himself prepared a set of lessons, and hence did not require a textbook of any kind.

"When the representative insisted upon seeing the reproduction, he discovered that the text had all been copied verbatim from the very book he had just presented. The instructor had, by means of reproducing devices, produced seventy copies of the main problems of the book, and thus supplied his classes with the latest textbook material.

"The instructor may defend his action upon the plea of economy, yet the *conscientious* instructor will interpret such an action as an underhanded theft. If the author, who has spent time, thought, and labor upon his book, is entitled to a royalty, and the publisher, who has invested his capital and energy in its production, is entitled to an earning, then the instructor's "stolen" textbook pages constitute nothing more nor less than an infraction upon property rights.

"The owner of copyright has a remedy at law in that he may secure an injunction restraining infringement, and also sue for damages. The more serious part, however, of the copyright law is found in the criminal statute by which it is made a misdemeanor to wilfully infringe upon the work of an author. Such infringement is punishable by imprisonment not exceeding one year, or a fine of not less than $100, nor more than $1,000, or both, in the discretion of the court. . . .The law also includes in an action all persons who have wilfully aided and abetted the offender. . . .

"It is not likely that the school administrator will tolerate unethical conduct on the part of his subordinates in the matter of textbooks any more than he would tolerate such conduct in any other school activity. If a school is to stand for high ideals, then integrity and honor must be exemplified by everyone connected with the same."

**The Third of the Ten Cardinal Points**

THE third plank in the platform of modern health and physical education calls attention to an unfortunate situation that exists in many communities. Too frequently, the mental education, the health, the play, and the physical education of children illustrate the weakness of diverse and competing organizations. The school as an institution is held responsible by a nodding public, for the child's development and progress in academic studies, the Board of Health is answerable for the school child's health, the Park and Recreation Board is accountable in part for his play, while the War Department, intent on "building manhood and developing character" assumes a ready responsibility for his "physical development." This anomalous state of affairs is not true in all cities nor in any city in its entirety, and yet the fact remains that a chaotic condition exists generally with regard to the life and development of the whole child.

These disparate emphases are in part the result of a philosophic dualism that separates mind and body, in part the practical realism of party politics, and in part the lack of vision of those in authority for a complete education of the whole child, or what Principal Jacks in his lecture in this country is calling, "a co-education of body and mind."

It would appear that we, supporters of this platform, spokesmen for the health and physical education of children, must become increasingly and persuasively vocal regarding the values that are so commonly neglected. It is apparent that communities are, in the main, alive to the needs of boys and girls for mental and religious guidance and education. Practically every community has its schools and its churches. Is it too much to expect that social vision will soon declare that community an anachronism that fails to provide adequate clinical facilities, adequate play and recreation opportunities for children, not in diverse and chance ways but through the co-ordinated direction of the school?

But these goals are not to be obtained by a mere wishing for them. Ideals such as these are only the flimsiest sort of things if they eventuate in nothing but hopes and dreams. Indeed, ideals only exist as we see the means for their attainment. Action is needed and a first step in the process is to place under the Board of Education responsibility for the education of the whole child (since the whole child goes to school) and, by an awakened public opinion in such matters, see that the whole child is educated. This would be a significant achievement and would at once relieve public educational institutions of the necessity of tolerating longer the War Department with its Girl Colonels, its medals and uniforms, its bands and parades, and its droll drills; it would eliminate the Board of Health, concerned mainly with communicable diseases, and would substitute the school's own health officials who could be directed toward significant and far-reaching preventive and educative measures.

Perhaps public school education can never progress to such levels without the fine example of the pioneer enterprise in private schools. The battle for free public school education was won in America out of the sharp contrasts between the pauper and private schools. Private initiative and enterprise saw the need for training teachers long before public institutions could be roused to do this important work, and the tardy development of municipal camps and recreational facilities is built upon the experience and success of privately owned and operated summer camps. Some private schools now show, in their education of an elite, what public school education must eventually do. These achievements cannot be too highly appraised. Those interested in the whole individual will never be satisfied with the partial, limited, halting, and obtuse procedures that so widely prevail in public education. By *Jesse Feiring Williams, M.D., Vice President of the American Physical Education Association.*

# Report of the Committee on Professional Ethics

IN formulating a code of ethics for the fields of health and physical education[1] the basic assumption was made that all persons engaged in teaching or administration in these fields are members of a professional group which is deserving of lay recognition equal to that of the learned professions of law, medicine, and theology, for the following reasons:

1. The fields are organized; active societies look to the advancement of the fields on a basis of ever-increasing service to humanity.
2. Requirements for professional practice in the fields are continually being upgraded to the end that the quality of service will be improved.
3. High grade colleges and universities provide undergraduate and graduate courses in the subject matter of the field.
4. The remuneration, position in society, and dignity attached to the professional practice of health or physical education are such as to make them desirable fields of work.
5. The fields possess high standards of ethical conduct.

It is this latter item about which the Committee on Professional Ethics has centered its activities. While it is well understood that teachers of health or physical education in the main follow ethical practices, it is felt that the standards of conduct of the entire professional group would be enhanced if some written code of ethics could be prepared. It is the belief of the committee that a code of professional ethics is nothing more or less than a set of well-established standards of conduct. This code may be written or unwritten, but in every case it must include those acts which experience has shown to be of the greatest value to individual members of the group, and to the growth and advancement of the profession itself. To an honorable and thinking member of a professional group no written code is necessary. The ability to weigh values and to make right decisions in matters of professional conduct constitutes no problem to the individual who realizes the results of his acts in the light of their immediate and remote effects upon himself and his profession. Conversely, no selfish individual who regards self higher than his profession will benefit from a code of ethics whether written or unwritten; he will judge his actions solely from their immediate effects upon himself. Obviously professions do not advance in scope and service from the acts of selfish individuals.

It must be recognized that codes of ethics do not come into being by the simple committee act of stating what does or does not constitute acceptable professional conduct. A code of ethics must grow; it must evolve as a concomitant of the profession itself. Hence, such a code is not a matter which may be stated once and for all, and then relegated to the archives of professional history. On the contrary, a code of professional ethics is a dynamic force which moves along with the profession, influencing and being influenced by its sphere of application. The chief value of such a code does not lie in its effect upon the established members of a professional group, but rather in its influence upon those initiates seeking careers in the field, and to the laity in order that they may better understand the actions of members of the profession.

A code of ethics to be of the greatest value to a profession should be stated in writing and be so explicit in nature as to preclude the possibilities of individual interpretation. Hence, no comprehensive code can be expressed in a few general statements. It must be extensive enough to include all of the professional acts which are likely to be engaged in by members of the group. Likewise, this code must be intrinsic to, and accepted by, the majority of the members of the profession. Aside from their artistic value as wall decorations, codes in general, mottoes, and professional oaths, contribute little to professional conduct unless they are meaningful to each member of the group.


**The Committee on Professional Ethics**

Dr. Harry A. Scott, Rice Institute, *Chairman*
Mr. Franklin Armstrong, Montclair, N. J.
Prof. Rosalind Cassidy, Mills College
Dr. Fred Cozens, University of California at Los Angeles
Miss Christine Dobbins, New York City
Mr. Francis Dougherty, Los Angeles, California
Prof. Henry M. Foster, Univ. of Washington
Miss Vera Gardiner, Chicago, Illinois
Miss Jessie R. Garrison, Montgomery, Ala.
Prof. Granville B. Johnson, Univ. of Denver
Prof. Tucker Jones, Col. of William and Mary
Prof. A. S. Lamb, M.D., McGill Univ., Canada
Prof. Frank S. Lloyd, New York University
Miss Margaret McKee, Des Moines, Iowa
Mr. Kirk Montague, Norfolk, Virginia
Mr. William Moorhead, Harrisburg, Pa.
Mr. Herman Norton, Rochester, N. Y.
Miss Ethel Perrin, American Child Health Association
Mr. F. A. Rowe, Cleveland, Ohio
Mr. Carl Schrader, Boston, Massachusetts
Mr. Amos Alonzo Stagg, University of Chicago
Prof. L. W. St. John, Ohio State University
Mr. Henry Schnelle, New Haven, Connecticut
Dr. Lloyd B. Sharp, University of Chicago
Miss Lena Walmsley, Bates College, Lewiston, Maine
Prof. J. F. Williams, M.D., Columbia University
Dr. Carl Ziegler, Cincinnati, Ohio.


[1] While this code has been formulated primarily for school situations it will apply with few exceptions to health or physical education workers in other fields.

In formulating a tentative code of professional ethics for teachers of health or physical education, it was necessary to search the literature on professional codes and select from them those items of conduct that would apply to physical or health education. Since it seemed desirable to endeavor to list all professional acts which physical or health educators would be likely to perform it was necessary to call upon members of the professional group to supply these items of ethical importance. Hence several hundred graduate students in health or physical education at Teachers College, Columbia University, were requested to formulate this list of professional items.

The following procedure was used: a list of fifty items was prepared which, in the opinion of the committee, possessed some degree of ethical importance. This list was handed to the above-mentioned group with instructions that they strike out any item which, in their opinion, possessed no degree of ethical importance and that they add to the list items which should, in their opinion, be included in a code of professional ethics for teachers in their field. For the purposes of this study the word "teacher" applied to all educational levels from the kindergarten through college, and included the athletic coach, the teacher of activities in the field of health or physical education, the classroom teacher of health or physical education, and the administrator of a health or physical education program. Furthermore, the term "physical education" was considered as including the field of athletics.

The graduate students who were requested to evaluate and add to the list of prepared items included high school and college athletic coaches, teachers and administrators of health and physical education programs on all educational levels, and teachers in the theoretical aspects of the field. These individuals held positions in all sections of the country and represented, perhaps, as nearly a representative sampling of the fields involved as it is possible to obtain.

Replies to the request to evaluate and add to the list of items were received from 351 individuals. In tabulating the results of this procedure any item not included on the evaluation sheet was added to the list. This resulted in the number of items possessing some degree of ethical value being increased to 68.

The next step in the study was to prepare a new list of 68 approved items. This revised list was again submitted to the group of "teachers," with the following instructions: "Assuming that each item possesses some ethical value, rate it on a scale of 1 to 10 (10 being exceedingly important, and 1 of very little importance), as to the degree in which it should be observed by the teacher of health or physical education." Three hundred and twelve individuals rated the 68 items. The results were then tabulated. In order to give a more complete picture of the relative ethical importance attached to the various items the median (Med.), the 25th ($Q_1$), and the 75th ($Q_3$) percentiles were computed, thus giving the range of the opinions of the middle 50 per cent of those rating each item.

In interpreting the results of the study an item which shows a relatively great difference between the scores of the 25th and the 75th percentiles represents a wide variation in the opinions of those who rated the item as to its ethical value. On the other hand, if there is a relatively small difference between the scores of the 25th and the 75th percentiles, the opinions of those who rated the item agree closely as to its degree of ethical importance. Hence, an item which was scored from 4.3 ($Q_1$) to 9.1 ($Q_3$) represents considerable disagreement as to its ethical importance, while one which was rated from 9.0 ($Q_1$) to 9.6 ($Q_3$) was considered by practically all judges to be of great importance; likewise, an item scored from 2.3 ($Q_1$) to 4.2 ($Q_3$) was deemed of relatively little ethical value in a code of professional ethics for teachers of health or physical education.

Following is the complete list of items ranked according to their ethical importance:

*It is ethical for "teachers" of health or physical education:*

To live up to the rules of the conference, or league, or to the agreement between competing institutions, both in letter and spirit, in all types of inter-school competition.

To give each teacher under one's supervision every opportunity for professional growth and development.

To maintain in strict confidence all department or school matters not intended for dissemination.

To uphold, honor, and dignify the profession.

To improve in every way possible one's knowledge and skills in the profession.

To maintain a high standard of health and physical fitness.

To practice intellectual honesty.

To refer to a competent medical doctor all physical or organic defects requiring diagnosis or treatment.

To give credit where credit is due in recognizing meritorious service either on the part of teachers or pupils.

To answer truthfully all questions pertaining to professional qualifications when applying for a position.

To absent oneself from school or classes only for good reasons.

To give each pupil an equal opportunity without individual prejudice.

To set a high standard of conduct at all times for those coming under one's supervision.

To bring to the profession all the knowledge, skill, and devotion one may possess.

To give one's employer ample notice if a new position is accepted.

To give credit to the proper sources in the matter of borrowed ideas.

To insist upon the proper conduct of students whenever and wherever they are under one's direct supervision.

To vacate one's position only after all records are in such a state as to be readily understood by one's successor.

To accept proper criticism in a gracious manner and if in error to remedy the fault which called forth the criticism.

To ascertain the exact meaning of written and verbal contracts and to live up to them in letter and in spirit unless dissolved by mutual consent, and with amiable results.

To maintain a tolerant and open-minded attitude toward others in matters where opinions differ.

*(Continued on page 53)*

# Fitting Feet for Play

By

**Wm. REDDEN, M.D.**

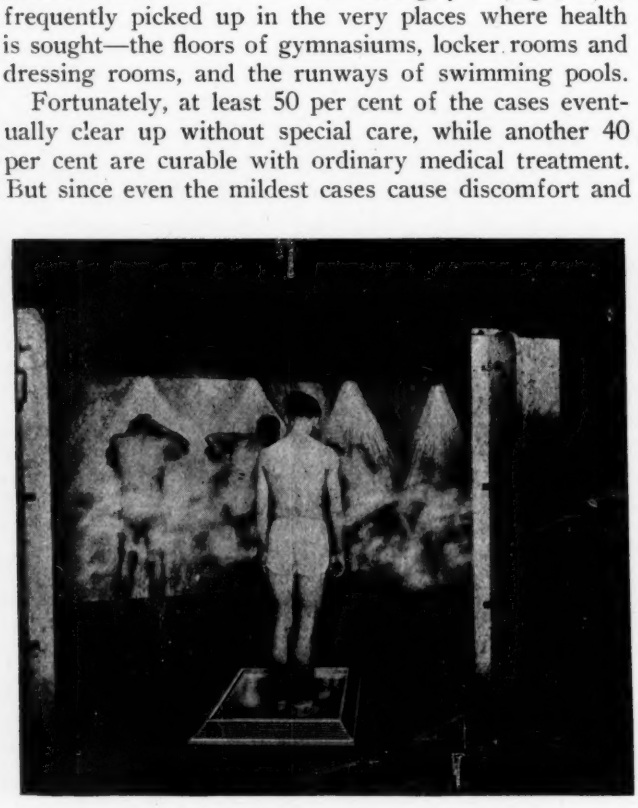
Health Service, Cleanliness Institute
New York City

THOSE in charge of swimming pools and gymnasiums are growing more careful each year about the purity of the water and the sanitary condition of the equipment. The increasing numbers of men, women and children who frequent recreation centers are not only given opportunities to gain stronger nerves, better posture, and greater endurance through regular exercise, but they are protected from diseases which are likely to be passed from person to person wherever large groups of people assemble. But one very prevalent disease is often overlooked because not until recent years has its infectious character been understood. That troublesome and persistent ringworm fungus which causes what is variously known as dermatophytosis, athlete's foot, or Dhobie itch annoys at some time every other person in the country, according to a statement broadcast by the United States Public Health Service. And strangely enough, it is frequently picked up in the very places where health is sought—the floors of gymnasiums, locker rooms and dressing rooms, and the runways of swimming pools.

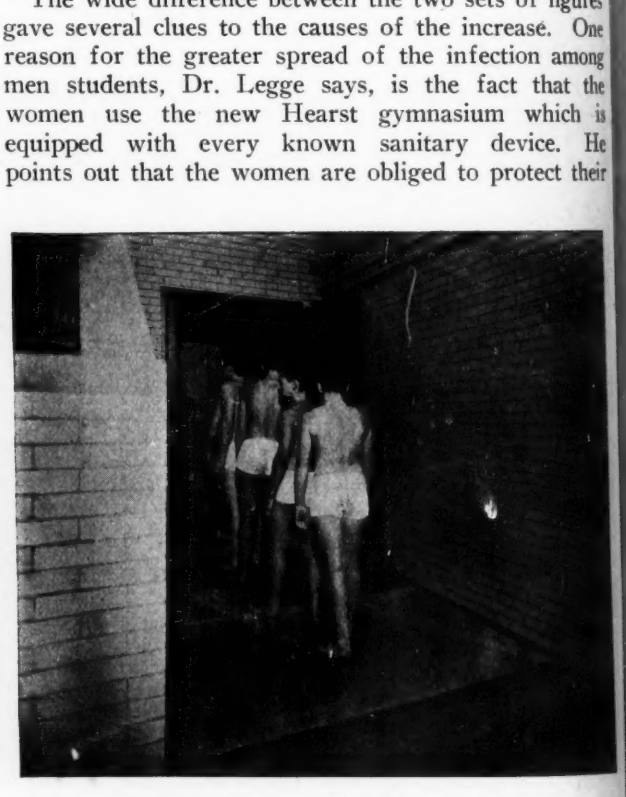
Fortunately, at least 50 per cent of the cases eventually clear up without special care, while another 40 per cent are curable with ordinary medical treatment. But since even the mildest cases cause discomfort and consequently handicap those who engage in athletics, the problem is grave enough to merit the attention of leaders of recreation.

That the disease is common among men and women who use showers, swimming pools and gymnasium apparatus is shown from a report made by Dr. Robert T. Legge and others after an investigation of students at the University of California. In the fall of 1928, Dr. Legge examined 3,100 freshmen for this condition. Clinical signs of the infection were discovered in 53.5 per cent of the men and 15.3 of the women. At the close of the spring semester, he re-examined 1,000 men and 997 women who had been attending physical training classes. As a result, 78.5 per cent of the men were shown to have ringworm, and 17.3 per cent of the women were proved to be infected—an increase of 25.3 per cent among the men and a 2 per cent increase among the women.

The wide difference between the two sets of figures gave several clues to the causes of the increase. One reason for the greater spread of the infection among men students, Dr. Legge says, is the fact that the women use the new Hearst gymnasium which is equipped with every known sanitary device. He points out that the women are obliged to protect their



**Footbath receptacle placed for use at showers**
By courtesy T. A. Patterson Laboratories



**Footbath in floor depression before entering pool**
By courtesy T. A. Patterson Laboratories

feet with rubber bathing shoes and under no circumstance are they permitted to walk with bare feet on the floors of showers or runways leading to swimming pools or gymnasiums.

"Another reason women students have less ringworm of the feet," he goes on to say, "is because their habits are cleaner and they observe a much higher type of personal hygiene. They perspire less. They wear lighter, low shoes which are better ventilated and change these oftener."

Contrasting these hygienic measures and habits of dress with those prevalent among men students of physical education at the University, he reports that the men "use an antiquated gymnasium where, on account of lack or non-use of bathing shoes and inferior sanitary facilities, the students constantly walk in their bare feet and become infected." To these statements we might add that men, because they generally use showers, often neglect to soap and scrub the feet, while women on the whole prefer bath tubs and consequently are more careful about foot cleanliness.

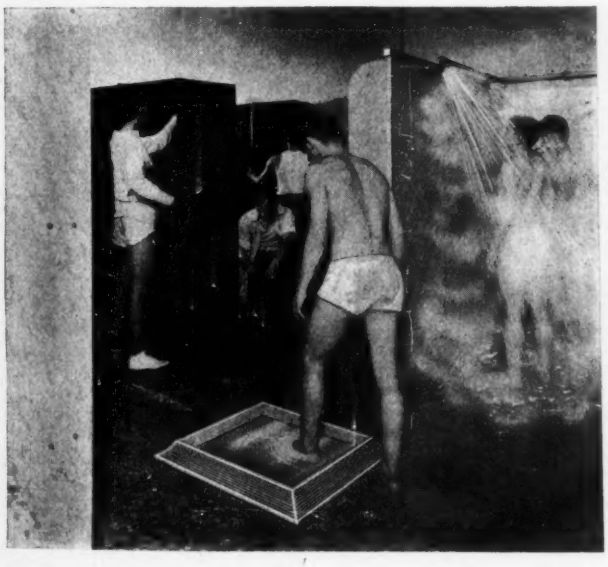
Dr. Legge's report indicates that absolute cleanliness of equipment and floor surfaces and strict supervision of those who make use of pools, gymnasiums, showers and locker rooms are necessary measures for the protection of the public. The fact that just one infected barefooted person can contaminate the floor of a shower stall or the edge of a swimming pool makes the work of stamping out the spread of the fungus rather discouraging. But insistence on foot covering and daily scrubbing and disinfection of floor surfaces will succeed in eliminating much of the danger.

Another method of ringworm prevention which has been tried out successfully is the use of sodium hypochlorite. In an article on "The Prophylaxis of Ringworm of the Feet", published in a recent issue of The Journal of the American Medical Association, Earl D. Osborne, M.D., and Blanche S. Hitchcock, B.S., reported that a solution of 0.05 per cent sodium hypochlorite had been used effectively in the Buffalo high schools and other public and industrial institutions. At the schools, students are required to walk through a pan or a "well" of the solution on their way to the shower baths and again just before putting on their clothes. An up-to-date check-up of the pupils showed no new cases of infection since their system was instituted.

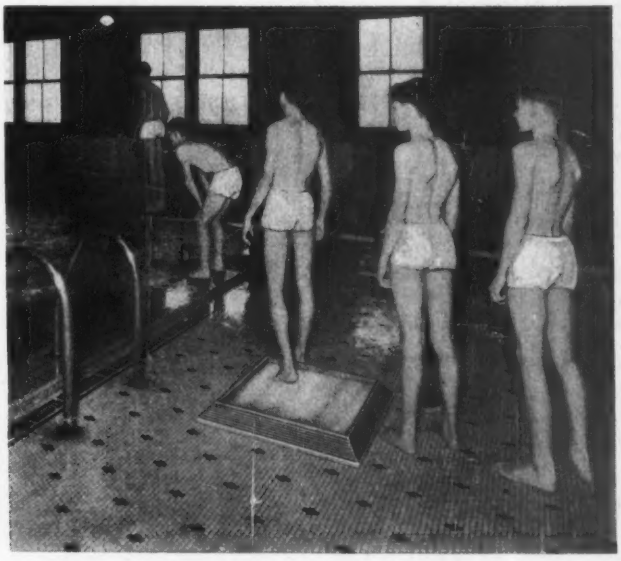
Uncovered perspiring or wet feet are easy prey for the ringworm fungus because it flourishes best under conditions of warmth and moisture. It attacks most frequently the skin surfaces between the fourth and fifth toes, causing scaly spots that become itchy and uncomfortable. No break in the skin is necessary as a starting place. Soft corns, cracked toes, thickened or thinned out toe nails are other signs of the infection. When it appears on the inner parts of the thighs, in the groin, or between the fingers, it has undoubtedly been transferred from the feet via the towel.

The first precautionary measure in preventing the spread of the fungus among groups who assemble for recreational activities is a careful check-up of infected persons. Men, women, and children who attend gymnasium classes or visit swimming pools should be examined frequently for evidences of ringworm. This examination should include not only the feet but the whole skin surface and the physician in charge should have the assistance of a dermatologist until he becomes thoroughly acquainted with clinical manifestations of the infection. Generally speaking, severe cases should be barred from entrance and those infected not admitted until the trouble has disappeared. Microscopic examination is advisable in order to make certain that the infection originates from skin fungus. Those afflicted should be directed to seek medical care and given suggestions in the matter of personal hygiene. Mild cases should be allowed to continue their

*(Continued on page 56)*



**Footbath at entrance to locker room from shower**
By courtesy T. A. Patterson Laboratories



**Footbath receptacle placed for use just before entering pool**
By courtesy T. A. Patterson Laboratories

# The "IF'S" Of Our New Publications

*If*

**You are called upon to coach Ice Hockey this winter and need a sound instruction book, you should have**

**ICE HOCKEY—**
HOW TO PLAY AND UNDERSTAND THE GAME

By "ALEX" SAYLES, Hockey Coach, Williams College, and "BUZZ" HALLOCK, Captain, St. Nicholas Hockey Club

*12mo. Cloth—24 Full Page Illustrations—$2.00*

*If*

**You wish to teach Tumbling in all its ramifications, a tremendous amount of material can be found in**

**TUMBLING ILLUSTRATED**

By L. L. McCLOW, Illustrated by D. N. Anderson

*8vo. Cloth—666 "Stickmen Illustrations"—$3.00*

*If*

**You are called upon to teach Health and you need simple and sound material, a valuable book is**

**HEALTH THROUGH PROJECTS**

By G. D. Brock

*8vo. Cloth—Illustrated by Charts and Diagrams—$2.00*

*If*

**You are a lover of fine books and want authentic information on Indian dancing, your desires will be fully gratified by**

**AMERICAN INDIAN DANCE STEPS***

By BESSIE and MAY G. EVANS of the Peabody Conservatory of Music

Eight Original Paintings in Color by Poyege, a San Ildefonso Indian

*Quarto Cloth-Indian Music in Full Score—Line Drawings—$7.50*

*If*

**You want the latest material on Public school administration written by one of the leading men in the field, you should obtain at once**

**THE ADMINISTRATION OF PHYSICAL EDUCATION**

By JAY B. NASH, Chairman Dept. of Physical Education, New York University

*8vo. Cloth—Over 100 Illustrations, Charts and Diagrams—$3.00*

**Write for the Illustrated Prospectus fully describing this book*

BOOKS INTENDED FOR CLASSROOM USE
WILL BE SENT "ON APPROVAL".

A.S. BARNES & COMPANY
PUBLISHERS
67 West 44 St ASB66 New York


## The Winged Victory

*A News Column*

VOL. I JANUARY No. 1

And the "Copywriter" tries his hand at column writing! Ever since I have been trying to spread the good news of BARNES BOOKS, I have always wanted to step out of the printed page and tell you about this, that and the other thing. If I bore you, please stop me.

* * *

Our new publication *Ice Hockey* was rushed through the works in record time. The manuscript was received late in October and the completed book was delivered on the first of December. From manuscript to book in one month!

* * *

I was present at the meeting of the New Jersey State Physical Education Society at Atlantic City and listened in on a splendid program. Big Things are planned for New Jersey and you'll hear from them soon.

* * *

I have just heard from our Editorial Department that one of America's greatest swimming coaches is gathering material for a book. From present information it will be on competitive swimming. More later.

* * *

We were discussing the other day what kind of favors or novelties to secure for the annual Physical Education convention which will be held at Philadelphia this year. Maybe you have some ideas? You will be the ones to receive them so might as well have some say in the matter.

* * *

Last year we published twenty-two titles all told and believe it or not, we are glad we published them. All of them are in demand.

* * *

If any of you have questions that you think I might be able to answer do not hesitate to drop me a line. Also, if you have contributions or news notes of interest I will be glad to give them space in this column.

Let me hear from you.

COPYWRITER.

Here Is THE BOOK You Have Been Waiting For

*To Be Published January Fifteenth*

# EXERCISE AND ITS PHYSIOLOGY

By **ADRIAN GORDON GOULD, Ph.B., M.D.**
Assistant Medical Adviser and Assistant Professor of Hygiene, Cornell University

And **JOSEPH A. DYE, A.B., Ph.D.**
Assistant Professor of Physiology, Cornell University

**The Authors Say in the Preface—**

"In no field of physiology has there been, within recent years, more rapid growth than in the field of the physiology of exercise. So rapid has been this progress that the results of the studies pursued in the various research laboratories, both in America and in various European countries, have appeared in many of the world's scientific journals some of which are difficultly accessible to the lay reader.

In this volume we have attempted to present to the reader for the first time a digested compilation of the principal facts made available through these many studies. So far as is possible, the language employed in this volume has been non-technical with the purpose in view that this volume may serve not only as a textbook for students of physical education, and as a reference book for advanced students and teachers of physiology, but also as leisure reading for physicians and others who may be interested in the effects of exercise on the normal growth and physical development of the human body."

THE CONTENTS


Mechanisms of Movement . . . . . .
Mechanisms of Movement, the Nervous Mechanism in Muscular Activity . . . . . .
The Physiologic Properties and Mechanical Response of Muscle . . . . . .
Other Changes Occurring in Muscle When It Contracts. II. Chemical Changes . . . . . .
The Stimulation and Excitation Process During Activity
The Contraction Process in Skeletal Muscle . . .
Bodily Fatigue. I. The So-called Muscle Fatigue or Peripheral Fatigue . . . . . .
Bodily Fatigue. II. Fatigue of the Central Nervous System and Sensations of Fatigue . . . .
The Recovery Process in Isolated Muscle . . .
Recovery in Man . . . . . .
The Dynamics of Muscle Contraction . . . .
The Dynamics of Muscle Contraction. The Capacity of an Individual to Develop Energy and to Work
The Blood . . . . . .
The Respiratory Functions of the Blood During Rest and During Muscular Activity . . . . .
External Respiration. Pulmonary Ventilation During Rest and Exercise . . . . . .
External Respiration. Respiratory Control and Its Adjustment to Exercise . . . . . .
Internal Respiration . . . . . .
Physiological Oxidations . . . . . .
The Circuation and Its Adapation to Muscular Exercise. I. The Heart . . . . . .
The Circulation. Blood Flow and Blood Distribution and Their Control During Rest and Exercise .
The Circulation. Arterial Blood-Pressure . . .
The Circulation. Blood-Pressure and Blood Flow in the Capillaries and Veins . . . . . .
Second Wind . . . . . .
Training and Some of Its Physiology . . . .
The Physiology of Exercise Performed During Emotional Stress . . . . . .
Body Temperature Control and Kidney Excretion During and Following Exercise. Benefits and Possible Dangers of Exercise . . . . . .


**8vo. Cloth—Copiously Illustrated—488 Pages—Price, $3.00**

**Examination Copies Sent Upon Request**
**Place Your Order Now**

A.S. BARNES & COMPANY
PUBLISHERS
67 West 44 St NEW YORK

# A Four Year High School Program

By
LOUIS KULCINSKI
Director of Physical Education
State of Illinois

THE proposed course of study outlined in Circular 252 sent out last spring to all high school principals in the State of Illinois is going to be published soon in the form of a teaching manual. This program is based upon the legal requirements: all students, both boys and girls; all grades, Freshman, Sophomore, Junior and Senior; regular courses of instruction, eight semesters, two periods a week.

It is further based upon the American Physical Education Association objectives:

Health habits that endure.
A class period in physical education each day.
A gymnasium and playground for every school.
The teacher fully trained; meeting state and university requirements.
The athletic coach a member of the faculty.
A graded and scientific curriculum.
Standardized physical achievement tests.
Positive credit for physical education work.
Education for leisure.
An intramural program for after-school hours.
An interscholastic program that stresses sportsmanship and ethical conduct.
Opportunities for scouting and campcraft.
Equipped and supervised summer playgrounds.
Provisions for wholesome adult recreation.

In addition, the course is planned to meet the cardinal principles of education: health, citizenship, character, leisure and worthy home membership, which are direct resultants; and vocational efficiency, which is an indirect resultant.

### Teacher Requirements*

The program must be supervised and to produce the maximum results the supervisors should be specially trained and qualified teachers. The following requirements suggest careful consideration in choosing the physical education teacher:

(a) Special teacher or supervisor.
  (1) Graduation from recognized college.
  (2) 40 hours of physical and health education.
  (3) 6 semester hours of English.
  (4) 15 semester hours of education.
(b) Major part-time teachers for regular class instruction.
  (1) The completion in a recognized higher institution of at least two years with major portion in Physical and Health Education (30 semester hours).
  (2) 6 semester hours of English.
  (3) 15 semester hours of Education.
(c) Minor part-time teachers for regular class instruction.
Same as major part-time teacher with 15 semester hours in Physical Education.

*Refer to the Illinois State High School Conference, Nov., 1930, Pages 48-53 for additional and detailed requirements.

### Credit and Grades

Time does not permit us to discuss this subject other than to merely mention a few viewpoints. At some later time this subject will be more vital. At present we must strive to incorporate into our schools a four-year program of physical education.

Should we fail those who are unable to perform the physical abilities or the neuro-muscular skills necessary in the course requirements? This requires careful thought and a consideration of the objectives of physical education. The primary objective is joyous activity, which produces pleasure and promotes health. Another objective is the classification according to a graded and scientific curriculum which calls for grouping according to growth. Whether a boy or girl can or cannot pass the content, he continues to grow and has been benefited by the participation. Hence, should he fail? Here is an opportunity to base the credit upon individual improvement and pass or fail according to the degree of improvement. What should be the standard of comparison—his own, or comparison to the class rate of improvement?

Tests and examinations for actual performance of specific exercises of course-content with definite requirements for passing the course have merits and are recommended in preference to basing upon attendance, good behavior, proper attitude toward course and personality.

Materials that might justify their use for grading and credit are the Girls' Athletic Association Tests for girls (Miss Vera Kraft, Illinois High School Athletic Association, 11 So. LaSalle St., Chicago, Ill.) and the National Physical Achievement Standards (National Recreation Association, 315 Fourth Ave., New York City).

The least that should be expected in the way of definite requirements for grades and credit for physical activities is to require successful performance of course-content in the form of neuro-muscular skills that make up the activities taught in the course. These can be arranged to compare to the individual's own improvement, the class average, or to the teacher's arrangement of standards.

### Program

Before one launches into a four-year program he must ask himself the question: "What is physical education?"

I am suggesting an answer by quoting the following short, clear statements made by Wm. R. LaPorte in the proceedings of the 34th annual meeting of the

Society of College Directors of Physical Education in Colleges:

1. Physical Education is no longer considered as a trailer or addendum to education, but as an integral part of education.
2. It is no longer a subject in education, but a field of education.
3. It is no longer an educational child, but an adolescent youth.
4. It is not a "system" but a definite method of education through muscular and emotional experience.
5. It is not a "panacea for ills," but a combination of specific media for securing various results.
6. It is not a mischief-preventive, but a stimulating form of leisure time expression.
7. It is not an energy-release mechanism, but a developer of character and moral traits.
8. It is not merely an exercise medium, but a method of developing poise and power of self-expression.
9. It is not a promoter of military precision, but a developer of intelligent leadership.
10. It is not a health insurance, but is a valuable aid to health.
11. It is not a mere physical developer, but a promoter of fine adjustment between physical and mental.
12. It is not merely an athletic battle of brawn, but a test of wits in physical-social competition.
13. It is not a stimulant to emotional frenzy or explosion, but to the development of emotional stability under pressure.
14. It is not a menace to life and limb, but a developer of safety skills.
15. It is not merely a preparation for adulthood, but a training for good citizenship.

The organization of a program of physical education that will answer the question and meet the statements made by Mr. LaPorte calls for a progressive, well defined and wide range of activities.

The activities of the proposed program have been selected from those listed in various college catalogues and special training schools, choosing those most practical for adaptation to present high school conditions. These activities have been classified into eight groups, one for each semester, and divided into three distinct types of activities, one for each six week period, or a total of twenty-four specific activities. This serves as a tryout course similar to the junior high school vocational tryout courses, giving the students an introduction to, and elementary training in, courses which they will be offered later on in college, university, or recreational centers, in their adult life.

Thus having received fundamental knowledge and general understanding of the types of activities commonly practiced in colleges and recreation centers, they will know, when they arrive, the activities in which they would like to receive special training. Since most schools have no programs, the materials presented are at present elementary, fundamental, and tentative. After a period of four or five years this material will, however, have become too elementary for high schools. At that time the more difficult material will be taken out and replaced with more elementary material and the resultant program used for the intermediate grades—5th, 6th, 7th and 8th—which would be the elementary course.

The high school course would consist of advanced courses of the same program. Both courses would be preparatory material for the college and university courses which tend toward specialization. There would then be a complete tie-up in the high school program which would reach down to the intermediate grades for elements of activities, would then practice the complete activities in the high school as advanced courses, and would later launch forward into the university to receive the more detailed and specialized instruction in the desired activities, a well grounded knowledge of which they have already received.

Each class period is divided into a ten minute introductory period and a twenty minute general activity period; the ten minute period for instruction in a progressive presentation of athletics and team play, the twenty minute period for the general course outlined.

Freshman I. Gymnastics and Sportsmanship.

1. First Six Weeks Period.
   a. Introductory Unit. The introduction and discussion of six codes of sportsmanship, one for each week of the six week period.
   b. General Activities. Give general knowledge for understanding of Soccer, Hockey, Football, Baseball, Volleyball and Basketball, covering:
      (1) object of the game
      (2) position and duties of the players
      (3) violations of rules and penalties
      (4) fouls and penalties
      (5) scoring
      (6) playing the game
2. Second Six Weeks Period.
   a. Introductory Unit. Illustrate violations and penalties, fouls and penalties, and introduce State Athletic Association rules and requirements.
   b. Elementary rhythms consisting of single steps in social dance rhythms and combined into one or two couple dances and games of low organization.
3. Third Six Weeks Period.
   a. Introductory Unit. Have students make up code of sportsmanship for own school.
   b. General Activity. Trick and figure-walking stunts and athletic preparatory exercises and tests.

Freshman II. Stunts. Individual Athletic Fundamentals.

1. First Six Weeks Period.
   a. Introductory Unit. Basketball elements. Some of these may be used as games, relays, circle and group games at end of period.
   b. General Activity. Tumbling composed of six simple single and six simple double exercises, one of each for each week of the six weeks periods; and twelve more difficult single exercises for course content, for each week of the six weeks period.
2. Second Six Weeks Period.
   a. Introductory Unit. Volleyball elements; underhand and overhead serve and bat, playing net ball, spiking, and team work.
   b. General Activity. Apparatus. Four pieces of apparatus, twelve exercises on each piece of apparatus, six stationary and six swinging; two exercises, one stationary and one swinging on each piece of apparatus, each week of the six weeks period.
3. Third Six Weeks Period.
   a. Introductory Unit. Baseball elements. Pitching and catching, batting and fielding (pepper ball), base throwing, base running and playing the game in work-up.
   b. General Activity. Pyramids composed of six simple single elements, six simple double elements, six simple combinations of these single and double elements and

*(Continued on page 58)*

# Basketball Skill Games

Compiled by
RALPH J. SCHNITMAN
Instructor in Physical Education
Fair Haven Junior High School, New Haven, Conn.

THE following games lend themselves for use in the development of basketball skill. Aside from their recreational value most of these games are desirable because they attempt to correlate one or more isolated skills to a basketball situation. They may also be used by the basketball coach as a tonic to help relieve "staleness" of a team or as sugar-coated basket shooting practice.

Some few of the games are original with the author, while others have been gathered through observation of games played by boys.

## GAMES

### 1. Center Dodge Ball

The players are arranged in a circle formation with one man, who is termed "It," in the center of the circle. The object of the game is to pass the ball about the circumference of the circle until a player is in a position to throw the ball at "It". If "It" is hit with the ball he remains in the circle as before. However, if a player throws the ball and misses "It," he then becomes "It" and must change places with him. Players may throw the ball as swiftly as they choose in an attempt to hit "It," but must remember that if they miss him they must exchange places. The game may be varied by having two players in the circle, or by using two balls.

### 2. Double Call Ball

Divide the group evenly and line one-half across the gym on one side and the other half across the other side. Starting with number one man, each man in line is numbered off consecutively in his own group, so that there will be two men answering to each number. One person stands in the center of the room, between both groups and as he throws a basketball up into the air he calls a number. As soon as the number is called, the boy in each group whose number corresponds to the number called rushes out from the line in an attempt to get possession of the ball. There being but one ball and two boys, one boy naturally will not catch it. Meanwhile the boys in each group scatter out of line in an attempt to get as far away from the ball as possible. The man catching the ball calls "stop" and all players must stand still as soon as they hear him yell. The boy not catching the ball automatically receives a black mark for not catching it. However, he may try to guard, in a legal basketball manner, the other man from throwing the ball. The object of the man throwing the ball is to try to hit a member of either group. If he successfully hits someone, the person hit receives a black mark. The thrower is allowed a regulation dribble with a pivot so that he may evade the guard. If he is successfully guarded, or if he does not hit anyone, he receives a black mark. After the ball is thrown the players line up again, and the ball is tossed up at center and another number is called.

When three boys have received 3 demerits each, they are lined up against the wall and each player is given a chance to take a forfeit shot at them from a given line.

### 3. Center Miss Ball

Players are arranged in a circle formation with one man in the center of the circle. Two balls are needed for this game. One ball is given to the center man and one is given to a man on the circumference of the circle. At a given signal the man on the circumference passes his ball to the center man, while the center man attempts to pass his ball to the next standing man on the circumference, and so on until the center man is made to miss. The person who makes the center man miss or fumble the ball exchanges places with him. The passes to the center man must be accurate and chest level.

The game may be played using push passes, one arm passes, cross chest passes, etc. It is a good game for developing quick and accurate handling of the ball.

### 4. Circle Pass Ball

Divide the group into circles of equal number, preferably 10 to 12 boys in each. One boy stands in the center of each circle with a ball. At a given signal he throws the ball to a member of his circle, this member immediately returns the ball to the center. The center man throws to the next man on the circumference, who returns the ball, etc., until each man in turn on the circumference has handled the ball. As soon as the last man on the circumference has handled it, he exchanges places with the center man and the ball is passed back and forth until each man on the outside has passed the ball to the new center man. Then the next man in turn goes into the center, etc., until each man has been in the center.

The circles compete with one another to see which one can finish first.

### 5. Bombardment

As many boys as care to may play this game. One boy is given a basketball which he throws with intent to hit some boy. If the boy at whom the ball is thrown succeeds in evading it or successfully catches it, he may throw it at someone else in an attempt to hit him. Should he be hit with the ball, however, he loses this

privilege. It is permissible to pass the ball to a boy who may be in a better position to hit someone. This last procedure is dangerous for one cannot trust his best friend in this game. Variations of the game may allow the thrower three dribbles and a pivot, or two balls or more may be used.

### 6. Forfeit 21 Ball

Players are arranged in a circle with "It" on the inside of the circle. The object of the game is to pass the basketball around the circumference of the circle, with at least 3 boys between the thrower and the catcher, without having the ball intercepted by "It." In other words the ball cannot be passed to the next man in line but must be passed to at least number four man from the thrower. The ball may also be passed across the circle. If "It" is successful in intercepting the pass or if he touches the ball, the person who last had possession of the ball exchanges places with him and becomes "It." Should the ball be passed twenty-one times without "It" getting possession of it, "It" must stand with his face to the wall while each boy in line takes a shot at him with the ball from a given line.

### 7. Keeping Away

a). Divide the group evenly and have a member of each group "choose" for possession of the ball. The object is to pass the ball among the group in an attempt to keep the other group from getting the ball. As soon as the other group gets possession of the ball they attempt to keep it, meanwhile passing it about. Members of either team are not allowed to hold their opponents.

b). The game is played as above except that all passes must be bounce passes, or all passes must be one arm, chest passes, etc. The player having possession of the ball is not allowed to take any step with it.

c). Another variation is to make the passer take a dribble in some direction before the passes. Also he may be made to pivot. The game can be made still more difficult by making the passer hold on to the ball until some member of his team "cuts" to meet him.

Three or four of these games may be played in the gymnasium at one time.

### 8. One O'Gang

This game is played with the use of but one basket and not more than 5 or 6 participants. One boy is chosen "It" and he competes as guard against the remaining players. The object of the game is to keep the ball away from "It," using any form of legal basketball advancement. When the ball is in a position to be shot for basket, the player may shoot. If he makes the basket he is credited with 2 points. If he misses he must exchange places with "It." Also, if the ball while being passed is intercepted by "It," the last person to handle the ball must change places with him. Each player keeps his individual score. All baskets made count for the man who shot them. As soon as a player has made a score of ten the game may finish.

A variation of the game is to have two points taken off the score of the player taking a shot and missing it. This puts a premium on good careful shooting.

This is a good game for it affords practice in one man guarding more than one opposing player.

### 9. One Goal Basketball

a). Where space is limited one may play "one goal ball" using all the rules of basketball with the elimination of the lines. Thus the ball is never out of bounds and is in play all the time except for jump balls. Both teams use the same basket and must be careful of their shooting or the opposite team can follow up the shot and put it in, the points counting for them. It is wise to keep the ball away from the basket and then, when an opportunity presents itself, to dribble in or pass to some one in a position to shoot. This is a good game for teaching follow-up shots and careful shots following a dribble.

b). A variation of the above game is to draw a line across the gym at the foul line. After a shot is taken at the basket by one team and is not made, the other team, if it gets the ball on the follow-up, must pass the ball out to a member of its team who must be behind the foul line. The ball may then be worked up for a shot. If the team shooting misses the shot and recovers the ball it may shoot again without first passing the ball back. In other words, if the same team recovers the ball it may shoot again; if the other team gets possession of the ball after a shot by the first team, it must work the ball back from the foul line before it can legally take a shot for basket.

### 10. Left Hand Basketball

Played like regular basketball with the exception that all shooting and passing is done with the left hand. An infringement of the left hand rule calls for a foul try which must be thrown with both hands. This is a good game to develop shooting with the left hand especially in dribble shots for the basket.

### 11. Whistle Ball (D. K. Brace)

The players may be lined up in a double line formation, each man facing a partner. As many balls as are available may be used. The object of the game is to pass the balls back and forth, up and down the line without being in possession of one when the whistle blows. All people in possession of a ball when the whistle blows are eliminated. Any boy who drops a ball during the passing back and forth is also eliminated. Each boy must catch the ball each time it is thrown at him. He must not tip it to someone without first handling it.

### 12. Mass Basketball

Some gymnasiums are fortunate in having practice baskets besides the regular two baskets necessary for the game of basketball. In a gym having two regular baskets and four practice baskets it is possible to play 15 games of basketball at once. Of course it must be remembered that the highly organized game cannot be

*(Continued on page 50)*

# A School Circus

## Produced with Spontaneity and Industry

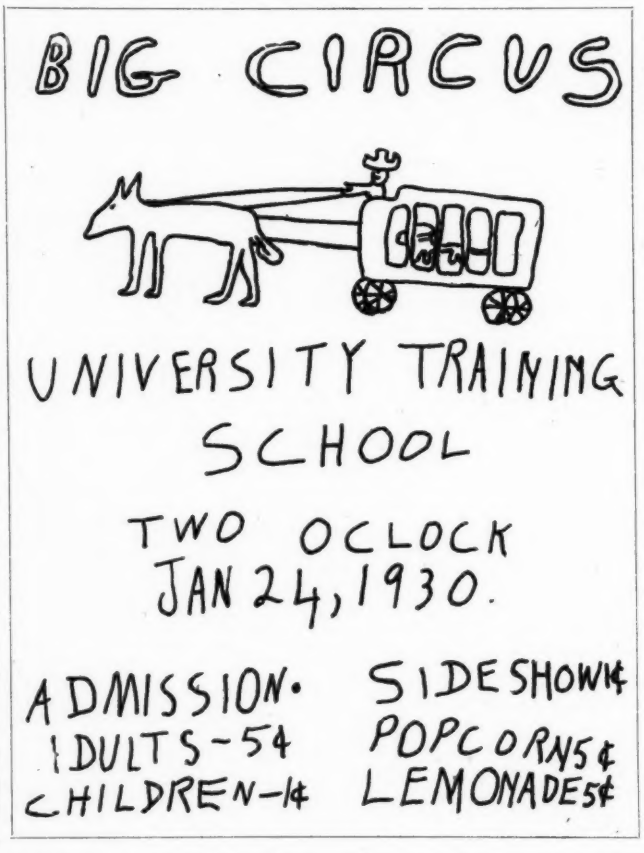
By

**MARION A. SHEPARD**

University Elementary School, Los Angeles

CAN the spontaneity and originality of the barn circus and home dramatics of a generation ago be paralleled in our present day school productions? This same spirit is still in evidence in back yard circuses and Saturday night entertainments at summer camps, and frequently in progressive school programs. An illustration of a cooperative effort that resulted in a successful entertainment was given by the University Elementary School of the University of California at Los Angeles.

The boys of the fourth, fifth and sixth grades were having instruction in agility stunts twice a week. About five weeks before the end of the term the boys were asked if they would like to give a circus. The response was most enthusiastic and the suggestions offered by the boys were colorful and varied. As the fifth and sixth grade boys could do clever acrobatic stunts, the side shows and clown stunts were left for the fourth grade. The first clown stunts suggested by the boys required complicated mechanical devices, like a little fire engine that could shoot water. Two of the boys looked up an article in a *Popular Mechanics Magazine* describing clown devices, but as neither of these boys were mechanically inclined, they soon decided that they would rather imitate the acrobats.




One boy whose brother had received a magician's set for Christmas offered to bring it and put on a magician act. The next day he brought his things to practice and amused a crowd of boys during an entire noon hour.

The interest in the production of the circus gradually spread throughout the school. One rainy day when the girls of the fifth, sixth and seventh grades were together indoors during the noon period, they were asked if they would like to take part in the circus that the boys had started in their tumbling class. The girls were eager for the chance and suggested feature stunts for the parade. Try-outs were held at once, and a few parts were decided on by the group. The next noon, boxes of old costumes were brought out of the store room and the girls were allowed to make their own selections. One girl put a red Raggedy Ann wig on her head, drew on a close fitting red coat and short yellow pants, then pinned a yellow wig on her hips. The addition of a red cambric strip on her sleeves transformed her into a rooster. The rest of the girls were enthusiastic over the ingenious costume and one of them suggested that she be at the end of the parade and crow.

The spontaneity and humor evidenced as each new bit of costuming was discovered and converted into a new use, was typical of the progress of the circus. From that time until the day before the circus was given, boys and girls, singly and in groups, came to the management asking if they could be in the circus. They were allowed to join as soon as they thought of something that had not been included before. Turning-bar try-outs were open to all, and there were representatives from all grades doing original or traditional stunts. The second grade worked up a kitchen band. Children from all grades brought pets. The last day before the circus, the first grade asked to take part. They joined in the parade wearing any costumes that they had. One of the boys wore overalls and a straw hat, carried his pet duck, and was one of the most appealing members of the parade.

These "last minute" entries may seem to suggest a

*(Continued on page 42)*

# Projects of Our Girls' Athletic Association

By

MARIE SNAVELY

Lincoln High School
Lincoln, Nebraska

AT this period of economic readjustment one result seems inevitable, namely, that there will be more leisure time for everyone. There may also be an excess of leisure for people who have been accustomed to an active life in industry. It should be realized, too, that those who are young people today may, as adults, be working on a part-time basis or on a five-day weekly employment schedule.

One of the problems of the public schools is that of preparing these young people so that they may successfully adjust themselves to such a life. Their lives need now to be filled so full of healthy activities that in later life they will have many forms of recreation from which to choose. Besides being taught the fundamentals of creative sports, emphasis should be placed on developing clean-minded sportsmanship, an exhilarating joy of being actively occupied, and a great love for sports. It is in high school that this can best be done. The desire for such exercise may later grow into a real urge for physical recreation.

At Lincoln High School, Lincoln, Nebraska, the girls themselves have realized the value of carrying on many types of sports, and they are making a very noteworthy effort to meet the situation. "A sport for every girl" is the goal toward which they are ever striving. The girls' athletic association sponsors in season after-school classes in swimming, tennis, dancing, golf and archery, and team sports such as hockey, soccer, basketball and baseball. Each sport is offered three evenings a week. Credit hours may be received by enrollment and regular attendance in these classes. The girls are also encouraged to attend the classes just for recreation and are urged to come as often as possible. There is nothing compulsory about attendance in after-school classes unless they are taken for credit. Attendance in after-school sport classes for this semester is as follows: hockey 35, swimming 81, tennis 28, dancing 30, archery 12 and golf 12, making a total of 198 girls participating.

Classes in golf and archery are made possible by the cooperation of the girls' athletic association. The members have purchased all the equipment necessary for starting and carrying on the sports. This interest is a result of their realizing the value of activities that carry over into later life; and they have a desire to place this opportunity before every girl in school. The members of the G.A.A. sell candy bars and apples at the Lincoln High School football games and in this way earn money to procure equipment needed in their sports.

The noon recreational program for all high school girls is another interesting project the girls of the athletic association are trying to work out. Here again they have purchased all the equipment, have paid for the labor involved, and have invited all the girls in school to come out-of-doors and play during the noon period. The girls' athletic field has been converted into a large playground. On it are included a croquet court, an archery range, a practice driving course, a putting green and two courts for pitching horse shoes. The girls have access to six drivers, six putters, one mashie, one mid-iron, three bows, several dozen arrows, one target and stand, one wire and canvas permanent backstop for practice driving, eight pairs of horse shoes and one croquet set.

Another project of the girls' athletic association is providing an emergency fund for needy girls. The first $25.00 which the girls earn each fall forms the fund and it is given to Miss Olivia Pound, Assistant Principal, in order to help deserving girls. The money is spent for dental work, eye correction, in a few cases for tonsilectomy and even for hot lunches. The cases are always investigated by Mrs. Mapes, the school nurse, and the money is given only where it is seriously needed. Sometimes the girl needs only temporary help. The money may be accepted as a gift or as a loan, depending entirely upon the applicant. Where such a spirit of helpfulness is exhibited, we find in return a spirit of true appreciation. If at all possible the girl always wishes to pay back the money, even though it takes a long time and comes in by nickels and dimes.

Until the present semester, the G.A.A. has been the only organization supporting the emergency fund. Another high school organization has contributed to the fund this semester and the girls' athletic association takes a great deal of satisfaction in this additional endorsement of the project.

It is gratifying to find among high school girls this spirit of selflessness, this desire to give freely of their time and efforts in order that they may be of real help to the girls of the school. By contributing to the emergency fund, by promoting a noon playground program, and by providing additional opportunities in individual recreational activities, the girls have shown a real understanding of the physical education program of the high school.

### Convention Dates

April 20-23: American Physical Education Association and Eastern Society Convention at Philadelphia, Pennsylvania.
March 30-April 2: Middle West Society Convention at Columbus, Ohio.
March 30-April 1: Southern Society Convention at Jacksonville, Florida.

# Intramural Athletics in the Small High School

By

CLARENCE E. SWACKHAMER

Euclid Central School, Euclid, Ohio

### Objectives

"Development of the organic system through wholesome activity."

"Development of the neuro-muscular mechanism providing for fundamental skills."

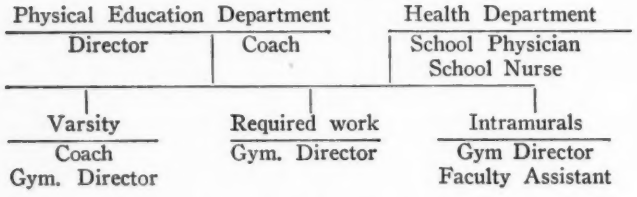
Development of character in relation to social standards and customs.

Development of such traits as:

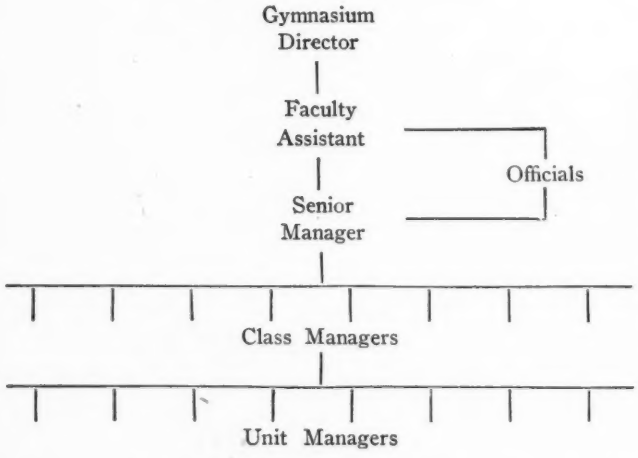
1. Habits and skills.
2. Information and knowledge.
3. Attitudes and appreciation.

Development of a program that will provide for maximum participation with a goal of 100%.

### General Organization




### Intramural Organization




The senior manager is selected by the director, the faculty assistant, and the class managers.

The director, faculty assistant, senior manager, and class managers constitute the intramural committee.

Class and unit managers may be members of their respective teams.

There is but one manager for each unit but if there are two teams in that unit for any sport, a class B team will be entered in the B league for that sport. Captains are elected by the teams.

### Program

*Units of Competition—*

Class units constitute the playing units. Units are classified as 9B, 9A, 10B, 10A, 11B, 11A, 12B, 12A.

If any units have enough boys for more than one squad in any one sport they will form two squads, the weaker of which will constitute B. teams. The teams thus formed will make up a class B league.

Awards are given winners in the B league. Points accumulated by individuals in this league count towards the individual trophy, but no points shall be awarded units towards the large championship trophy.

Each unit elects its own manager who may act as captain or be a player on the team or both. If the unit has two teams in competition there will be a second captain elected by the second team.

*Sports.—*

| *Major sports—team games* | *Minor sports—Individual sports* |
|---|---|
| Speedball | Horseshoes |
| Basketball | Basketball free throw |
| Baseball (playground) | Wrestling |
| Volleyball | Tennis |
| Track | |

In the team games, teams from each unit will play the teams from each other unit one game in each sport.

In track each unit may enter as many contestants as it desires but each boy will be limited to the number of contests he may enter and regulated as to kind of events. There are enough events to include all members of each unit.

In the minor or individual sports each unit runs off its own eliminations and one team represents each unit in the finals.

*Tournaments, Consolation Method.—*

The UNIT competition is scored as follows:

Team—

*Major sports.*

* First place—number of units × 2 + 5 entry points.
Second place—one less no. of units × 2 + 5 entry points.
Third place—two less no. of units × 2 + 5 entry points, etc.

* Does not refer to the number of units in the particular sport but to the number competing for the year. A play-off is required in case of a tie except in track.

# For the Professionally Interested

## REPRINTS AND BACK COPIES

*of the publications of the*

## AMERICAN PHYSICAL EDUCATION ASSOCIATION

BOX 362, ANN ARBOR, MICH.

### JUST OFF THE PRESS

No. 53. Symposium of Preventive and Corrective Physical Education, from HEALTH & PHYSICAL EDUCATION, illustrated..... 30c

No. 350. Report of the Committee on Dancing in Elementary Schools from the RESEARCH QUARTERLY ..... 30c

The recently published study "Physical Education Curriculum in Professional Schools" by the Committee on the Curriculum of the 139 institutions preparing teachers of Physical Education in the United States is available at the regular prices, i. e., $3.00 single copies, and $2.00 each additional copy.

Back copies of the following are available at the prices listed, postage prepaid:
"The American Physical Education Review," through 1929, new price, 30c each, four for $1.00; one volume, ten copies, (unbound), $2.00; one volume (bound), $4.00.
"The Pentathlon," for Oct., Nov., Dec., 1929, 25c each.

| *No.* | *Title and Author* | *Price* |
|---|---|---|
| | **REPRINTS FROM "THE REVIEW"** | |
| 1. | Athletic Constitution (Practical Hints to Teachers). McCURDY | 15c |
| 2. | Athletics from a Historical and Educational Standpoint. LARNED | 25c |
| 6. | Decathlon Scoring Charts—Elementary and High School—Boys and Girls, 4 for | $1.00 |
| 25. | Physical Education Buildings—Gymnasium and Lockers. COMMITTEE REPORT | 25c |
| 50. | German-American Gymnastic Societies and the North American Turnerbund. LEONARD | 25c |
| 77. | Health Examination Cards | 3c |
| 79. | Individual Exercises (Practical Hints to Teachers). STECHER | 20c |
| 84. | Postural Skills Essential to Health, Efficient Action and Joyous Living. McCURDY | 15c |
| 100. | History of Physical Education at Mt. Holyoke College. McCURDY | 25c |
| 150. | Atlantic City Public Schools, Department of Physical Training. MARONEY | 15c |
| 152. | Physical Education in Denmark. LEONARD | 25c |
| 155. | Report of the Physical Education Committee on High School Curriculums | 25c |
| 157. | Specimen Programs of Physical Training Activities for Use in Small Rural Schools | 25c |
| 178. | Classification for a Physical Training Library. McCURDY and AFFLECK | 25c |
| 181. | Hygiene of Physical Training. BURNHAM | 25c |
| 183. | Objectives of the Am. Phys. Ed. Assn. 1885-1927 | 25c |
| 188. | Status of Physical Education in American Colleges (1921). COMMITTEE REPORT | 25c |
| 225. | Playground Movement in Germany. LEONARD | 25c |
| 276. | Official Flash Ball Rules. CROZIER | 15c |
| 278. | Volleyball Coaching. HOTCHKISS | 15c |
| 280. | Bounceball. SHAW | 15c |
| 301. | War Sports. KLEEBERGER and WIGHT | 25c |
| 325. | Measurement of the Relation Between Physical and Mental Growth. COURTIS | 25c |
| 326. | Motor Ability Tests. COMMITTEE REPORT | 25c |
| 327. | Physical Test of a Man. SARGENT | 25c |
| | **FROM "THE PENTATHLON"** | |
| 153. | Physical Education Program for Men at Illinois. STALEY | 25c |
| | **FROM "HEALTH AND PHYSICAL EDUCATION"** | |
| 5. | Why Cramp Competition? GITTINGS | 20c |
| 27. | University of Southern California, Physical Education Building. LAPORTE | 25c |
| 51. | Natural Gymnastics. WILEY | 20c |
| 53. | Symposium of Preventive and Corrective Physical Education. COMMITTEE REPORT | 30c |
| 85. | Pre-School Child as a Health Problem. BOLT | 20c |
| 86-a. | Control of Ringworm. CHENOWETH | 20c |
| 87. | School Safety Education STACK | 20c |
| 88. | Two Problems of Health Education. OBERTEUFFER | 20c |
| 90. | Are We Becoming Overly Health Conscious? SUNDWALL | 20c |
| 140. | Integrating Physical Education. HOLT | 20c |
| 180. | Health Education and its Relation to Physical Education. TURNER | 20c |
| 182. | More Complete Living through Health and Physical Education. McLURE | 20c |
| 226. | Some Essentials in Playground Planning. HERMANN | 20c |
| 227. | The Gift of Land is the Gift Eternal. SCHROEDER | 10c |
| 252. | An Interpretation of Play through Intramural Sports. HOUSE | 15c |
| 277. | The Game of Squash. ABERCROMBIE | 25c |
| 279. | Volleyball—A Game for Junior High School Boys. DANFORD | 20c |
| 300. | Fancy Diving. HOAR | 20c |
| 302. | Survey of Football Injuries in the High Schools of Massachusetts. BURNETT | 25c |
| 329. | Test Scoring in Physical Education. COZENS | 15c |
| | **FROM "THE RESEARCH QUARTERLY"** | |
| 3. | Case for and against Intercollegiate Athletics for Women. LEE | 30c |
| 7. | State Organizations of Athletic Associations for Girls in Secondary Schools. LARSEN | 25c |
| 76. | Functional Health and Physical Fitness. CHAMBERLAIN | 15c |
| 83-a. | Vital Capacity—The Physique of Women Students at Newcomb College of Tulane University. GOULD and LOCKHART | 20c |
| 86. | Study of Ringworm in Men Students in the University of Cincinnati. CHENOWETH | 20c |
| 89. | Experiment on the Relation of Posture to Weight, Vital Capacity and Intelligence. ALDEN and TOP | 10c |
| 154. | Professional Education of Physical Education Teachers. OKTAVEC | 20c |
| 156. | Selection and Guidance of Professional Students. CASSIDY | 10c |
| 176. | Changing Conception of College Physical Education. LAPORTE | 20c |
| 177. | Circulatory Reaction of Standing. TURNER | 20c |
| 179. | Granting of College Entrance Credits in Physical Education. NICHOLS | 20c |
| 184. | Practical Administration of a Physical Education Program. NORTON | 15c |
| 185. | Professional Progress through Research. McCLOY | 20c |
| 186. | Study of the Relation of Athletic Skills and Strengths to those of Posture. DiGIOVANNA | 20c |
| 187. | A Respiratory Study of the Influence of a Moderate Amount of Physical Training. SCHNEIDER | 20c |
| 189. | Supervision of Practice Teaching in Physical Education in Undergraduate Institutions in the United States. BAKER | 20c |
| 191. | Exercise and Physical Development. MARTIE | 20c |
| 192. | Suggested Subjects for Physical Education Theses and Dissertations. BROWNE | 25c |
| 193. | Needed Research in the Field of Program in Physical Education. McCLOY | 20c |
| 194. | Classification of Completed Theses and Selected Subjects. BROWNE | 35c |
| 250. | Study of Play Facilities in Elementary Schools. ALTENBURG | 10c |
| 251. | What Constitutes a Good Football Team? HARTMANN | 20c |
| 281. | Studies in Physical Exertion. MILES and GRAVES | 30c |
| 328. | Relation Between Chest Girth and Vital Capacity. LOUTTIT and HALFORD | 10c |
| 330. | Use of Pulse-ratio Test for Rating Physical Efficiency. TUTTLE | 20c |
| 330-a. | Study of the Physical Efficiency of College Women as Shown by the Pulse-Ratio Test. TUTTLE and FREY | 20c |
| 332. | Development of Measures of Pupil Achievement in Physical Education. BRACE | 15c |
| 333. | Validity of Antero-Posterior Spinal Measurement. CURETON | 25c |
| 350. | Report of the Committee on Dancing in Elementary Schools. | 30c |

*Minor sports.*

First place—number of units + 5 entry points.
Second place—one less no. of units + 5 entry points.
Third place—two less no. of units + 5 entry points.
etc.

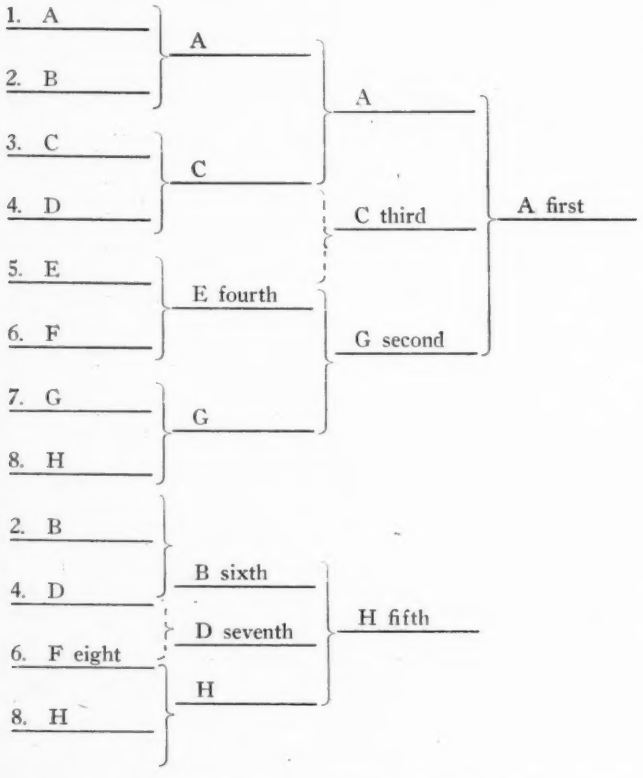
The INDIVIDUAL competition is scored as follows:

*Major sports.*

Each boy receives same number of points as the unit with which he completed + 5 for each game in which he took part.
Track—each boy receives a total of all points scored by him in the meet + 5 points for competing.

*Minor sports.*

Three points are given each boy for entering his unit eliminations.
Five points are given each boy who represents his unit in the finals or team competition.
Each boy gets as many points as are secured for his unit or team by him.




The total number of games played are twelve. Eight consecutive teams can be picked. Even numbers are drawn by teams or boys having best records and odd numbers by those with lowest records in their unit eliminations.

### Awards

A copper plaque with the sports and winner of each sport engraved thereon for the year is placed in the trophy case. When possible the plaque is prepared in advance at the beginning of the year with the various sports engraved and the winners unit

*(Continued on page 63)*

## A School Circus

*(Continued from page 38)*

lack of organization in developing the circus, but that was not the case. The main part of the circus was organized carefully and progress was systematically noted, but in order to maintain the spontaneity of a neighborhood backyard circus, only the boys' agility classes organized early and placed a definite responsibility on every member. Other children in the school joined in as they became interested through hearing about what was happening.

An outstanding feature of the circus was the strictly childlike presentation. During one period of the fourth grade agility class, the boys were given their choice of sketching a circus handbill to be circulated to advertise the circus or a big poster to be tacked up by one of the side shows. Three boys who had side show stunts sketched posters with colored chalk on large sheets of brown paper. The rest tried handbills. The handbill that was chosen by the class was made by a boy who had poor coordination and had never won recognition in art work, but was very interested in animals. His caged lion drawn along by a stiff legged horse won popular approval and copies of it were mimeographed.

Two art periods in the fourth grade were spent making billboard posters that were tacked up around the grounds on the circus day. A boy in the third grade brought several animal rubber stamps that he had received for Christmas. He and several of his classmates stamped these on squares of art construction paper for tickets. Admission was five cents for adults, one cent for children.

One committee took charge of popping and selling popcorn, while the Girl Scouts made and sold pink lemonade.

The side shows were curtained off with old canvas and large sheets of brown paper gaudily decorated with cartoons. For the price of one cent, spectators were amused by a Wild Man from Borneo, a monkey and his trainer, a fat man, and a midget with the lower part of his body concealed in a barrel.

The parade included most of the usual features of a circus. Its chief humor lay in the absolutely amateur costuming — a janitor's broom twisted with burlap served as the giraffe's head and neck, a brown paper shopping bag was transformed into a head for Spark Plug, and a yellow paper cone pasted over the nose served as the rooster's bill. The dramatization was spontaneous and spirited. As there had been but one complete rehearsal of the parade during the noon play period of the day before the circus, gestures had not become stereotyped.

A dozen stunts on the turning bars, such as "Rock the Cradle," "Monkey Drop," "Round the World," and "Ride the Donkey" were demonstrated by children of all grades dressed in clown costumes, and were announced by a spirited "barker" from the third grade.

The only part of the circus that had been drilled was the acrobatic show, and that was performed with zest and precision. Two lines of boys ran onto the field

from opposite sides and lined up behind gymnastic mats. Every boy did a series of forward rolls across the mats and took part in individual or couple stunts such as Head Stand, Eskimo Roll, Camel Walk and Shoulder Mounts. Several of the feature stunts were suggested by the boys, and those that were taught in class were perfected during free play at school or at home. The sensation of the afternoon was a series of high dives done by the most agile athlete in school, reaching a climax in a dive over a keg set on a table. The final feature was a series of three pyramids in which all the boys took part.

Some fundamental principles that were followed by those directing the circus were:

1. Selecting an undertaking which was fundamentally appealing to children, and giving them a chance to decide whether or not they wanted it and cared enough to work hard for its success.
2. Allowing individuals, as far as was possible, to select their own circus act and committee work.
3. Guiding and supplementing (but not dominating) by the teacher where help was needed.
4. Using normal class activities — practicing acrobatic stunts in ability activities class and making posters in art class, working up dramatic stunts during noon playground time, and not side tracking regular school procedure to put on an entertainment.
5. Forming committees of those who were especially interested in various phases of the work. The accomplishments of the committees were checked up and last minute rush was avoided.
6. Encouraging shy children, as well as the aggressive, in offering suggestions and taking part in activities.
7. Maintaining simplicity and the childlike character of the production by not spending any money for costuming. Old costumes from home or the school storeroom were renovated or transformed to fit the new need. A bicycle rack was put on a low bench to serve as the bars behind which the Wild Man and the Monkey were kept.
8. Prizing mutual pleasure of the actors and audience more than gate receipts. The admission for adults was only five cents and for children one cent. Children of our own school who were not taking part were admitted free.

The whole day of the circus was marked by eagerness and joy — preparations were free from nervous tension, and participation was rollicking. After the circus all the children seemed to feel that they had done something which had been great fun and which had been heartily applauded by their families and friends. The gate receipts were used for taking moving pictures of the circus so that all might have the fun of seeing themselves in action and experiencing again the thrills of the circus. One of the boys who was going to transfer to another school said, "I hope they have a circus at the new school in a couple of weeks."

Great Exercise . .
Great Sport . . . .
Great SKATES!

Encourage the youngsters in your care to do more skating. It's splendid exercise---a marvelous builder of self reliance and bodily well being.

And recommend that they skate on JOHNSONS ---the world's most popular tubular skates. JOHNSONS are built for foot comfort, speed and ease of skating. They stay sharp longer--- because the runners are of diamond tested, vanadium steel.

Let your dealer show you the new JOHNSONS ---priced within reach of all. Or mail the coupon below for the Johnson catalog.

Priced from
$6.00 to $25.00
per pair

There is only one genuine JOHNSON Skate

Nestor Johnson

LOOK FOR THE FULL NAME

MAIL THIS FOR CATALOG

NESTOR JOHNSON MFG. COMPANY
1908 N. Springfield Ave., Chicago, Illinois

Please send me this year's catalog on Johnson Skates

*Name* .....

*Address* .....

*City* ..... *State* .....

# Physiology

at the Service of Physical Education

**Arthur H Steinhaus**

*Professor of Physiology and Director of the Y.M.C.A. Laboratory for Physiologic Research in Physical Education, Chicago.*

**The series of which this article is one is an attempt to present and interpret to physical educators the results of some recent researches in Physiology which to the writer seem of importance to Physical Education. The articles cannot lay claim to scientific thoroughness. They must rely on their simplicity and essential accuracy to commend them to the reader. The bibliographical references should serve as starting points for any who desire to equip themselves with fuller information.**

## 13. The Theory of Muscular Contraction Is Being Renovated

After visiting the laboratories of Prof. Meyerhof, now at Heidelberg, and Prof. Embden at Frankfurt, I cannot refrain from discussing the present status of the theory of muscular contraction. For at least ten years these workers, as representatives of opposing schools of thought, have kept this question one of the hot-spots in the physiology of today.

No doubt most of us have been led, perhaps through the popular writings of A. V. Hill, to accept what may be called the Hill-Meyerhof lactic acid theory of muscular contraction. Simply stated it is this. Following stimulation of a muscle lactic acid is formed by the splitting of some precursor, probably some form of sugar. This lactic acid in some way causes the muscle fiber to shorten thus producing muscle contraction. The rather immediate neutralization of this acid by muscle buffers permits the fiber to lengthen or relax, and its subsequent oxidation and partial resynthesis to the original precursor form, provides the means for recovery to the original state. The theory found its main support in a rather quantitative relation between the amount of work done and the lactic acid which accumulated when $0_2$ was withheld, and in the brilliant direct heat measurements of A. V. Hill which showed that the heat actually liberated by the contracting muscle was about equivalent to what one would expect from the amount of chemical change necessary to produce and neutralize the lactic acid which appeared.

Embden, on the other hand, has with increasing conviction, based on a long, tedious experimental program, claimed that this theory is based on two false suppositions. First, that at the moment of contraction the reaction of the muscle is toward the acid side; and second, that the lactic acid appears at the moment of contraction. In support of his first criticism he and his co-workers have been able to show that at the moment of contraction there is formation of ammonia (Embden 1930 and 1931) which is split off from an adenylic acid, also isolated by him from muscle. In support of the second are the findings that lactic acid continues to form in a muscle for two to five minutes after the contraction has occurred. (E. Lehnartz 1931).

Embden's experiments lead him to the view that an *alkaline reaction and probably ammonia, is the immediate cause of contraction of the muscle fiber and the subsequent acid reaction chiefly due to lactic acid is the cause of relaxation.* Though Meyerhof (Lipmann and Meyerhof 1930, p. 109) has given up lactic acid as the causative factor in contraction, he does not yet accept this alkaline theory of Embden. A brilliant discovery by a Dane named Lundsgaard (1930-a) has had a profound effect on these developments. He showed that the muscles of a frog injected with monoiodoacetic acid, neutralized with sodium bicarbonate, were able to contract and relax in spite of the fact that in such a muscle no lactic acid is formed. He found that in a muscle contracting under these conditions a large amount of Phosphocreatin (a substance discovered in muscle by the Americans, Fiske and Subbarow, 1927 and 1929), was split into phosphoric acid and creatin. This splitting has been shown by Fiske, and Lipmann and Meyerhof (1930) to produce a change toward the alkaline side. In similarly poisoned muscles, Embden's group (Embden 1930 and 1931, and Embden and Norpoth 1931) was able to show increases in ammonia content somewhat proportional to the amount of contraction. But how is the acid supplied which permits such a muscle to relax? (The facts are that a muscle so poisoned contracts and relaxes one hundred to one hundred fifty times in response to nerve stimulation before ultimately going into a state of contracture, a cramp-like state. During the period of contraction the phosphocreatin content, according to Lundsgaard, goes to zero before contracture sets in; and Embden has found that the ammonia content continues to rise until maximum contracture.) Lundsgaard found that in the poisoned muscle there is also a considerable increase in hexosephosphate. Evidently the phosphoric acid combines with a sugar. This hexosephosphate is of acid nature. Embden (1930) believes that this is the source of the acid which permits relaxation to occur in the poisoned muscle but Lundsgaard (1930-b) doubts it.

But there is still another known change in a contracting muscle which may be most important. Deuticke (1930), a pupil of Embden, was able to show that in a tired muscle there have occurred changes in the proteins making up its very structure. These changes he detects by measuring the amount of the protein of the muscle which is soluble in water. Inevitably with fatigue and with the approach of death there is a *reduction* in solubility of the muscle protein. A muscle recovered from fatigue shows a return to normal solubility. Running parallel with these solubility changes there are changes in the ability of these muscle-extract preparations to induce, in vitro, a synthesis of sugar with phosphoric acid, suggesting that fatigue cripples the actions of the enzymes in muscles which are active in recovery.

With so many details a summary statement, even though faulty, may be helpful. With our concept of the chemical changes in a contracting and relaxing muscle steadily growing in complexity, it is difficult

if not presumptuous, for anyone but a specialist to generalize. The following is offered as an aid to understand the inter-relations of the views of several workers at present active in this field. When the nerve impulse reaches the muscle, ammonia and perhaps also phosphoric acid is split off from the amino group of an "aminopurinkomplex" (the adenylic acid above mentioned) changing it to an "oxypurinkomplex" (Embden). Simultaneously or immediately following this phosphocreatin is split to phosphoric acid and creatin (Lungsgaard). Both of these changes induce an alkaline state (Embden) and bring on the contraction which in itself is perhaps in the nature of a reversible coagulation of the protein fibrillar structure (the observations of Deuticke on changed solubility of muscle proteins in fatigue, etc., fit in here). Immediately, the phosphoric acid combines with a hexose (sugar) to form a more acid hexosephosphate and if the muscle is not poisoned by monoiodoacetic acid, lactic acid is also formed from the splitting of this hexosephosphate, also called lactacidogen in the earlier literature. This appearance of acid neutralizes the alkaline condition and brings on relaxation (Embden). (At present, Lundsgaard (1930), and Lippmann and Meyerhof (1930) differ from Embden in that they do not lay emphasis on the changes in reaction toward alkaline and acid as essential to contraction and relaxation respectively. Nor do they think that ammonia plays a very important role.) The lactic acid is then disposed of according to the Meyerhof-Hill theory, first by neutralization, then by oxidation and resynthesis. According to this view (Lundsgaard 1930), the energy liberated by the forming of lactic acid from hexosephosphate is utilized in the resynthesis of creatinphosphate and the aminopurincomplex, also called adenylpyrophosphate, from their respective split products, and the cell is reloaded for the next contraction. How long this explanation will stand, I do not know. Unquestionably it leads us a step farther into the secrets of muscle cell chemistry, and this under the guidance of some carefully established facts.

## LITERATURE CITED

Deuticke, H. J., 1930, Pflügers Arch. 224, 1; Embden, G., 1930, Klin. Wschr. 9, 1337; ———1931, Hoppe-Seyler's Ztschr. 196, 23; Embden, C. & Leo Norporth, 1931, Hoppe-Seyler's Ztschr. 201, 105; Fiske, C. H. & Y. Subbarow, 1927, Science, 65, 401; ——— 1929, Jour. of Biol. Chem. 81, 629; Lehnartz, E. 1931, Hoppe-Seyler's Ztschr. 197, 55; Lipmann, F. & O. Meyerhof, 1930, Biochem. Ztschr. 227, 84; Lundsgaard, E. 1930 a, Biochem. Ztschr. 217, 162; ———1930 b, Biochem. Ztschr. 227, 51; Meyerhof, O. 1930, Die Chemischen Vorgänge im Muskel, Berlin, (for a comprehensive statement and bibliography previous to Lundsgaard's discovery); Meyerhof, O., E. Lundsgaard, & H. Blaschko, 1931, Biochem. Ztschr. 236, 326.

**MORE and MORE!** The demand for back copies of the Journal for the months listed below has not yet been met in full. We are appealing to members who have copies of these issues which are no longer needed to send them in. 30 cents for each copy of "Health and Physical Education" for February, 1931, January, 1931, and October and December, 1930, will be paid when they are received at the address below. We simply ask that they be wrapped securely or put in a large, heavy envelope.

AMERICAN PHYSICAL EDUCATION ASSOCIATION
DEPT. BN, BOX 362, ANN ARBOR, MICHIGAN

# CHARLEY HORSE

One of the most common athletic injuries is that called "Charley Horse."

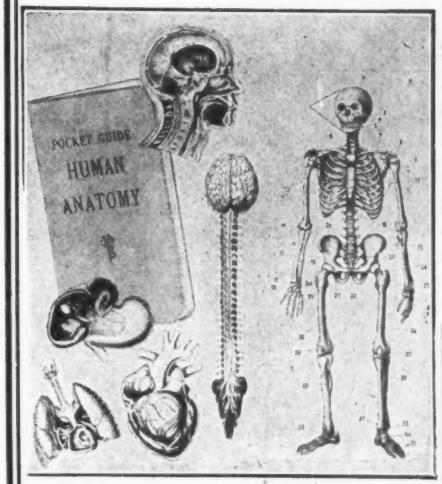
*Antiphlogistine*

dressings, by supplying continuous moist heat, relieve the congestion, accelerate circulation and reduce the pain and discomfort associated with this injury.

The time of recovery is also considerably reduced, provided the Antiphlogistine dressings are carefully applied and the treatment continuously maintained.

The Denver Chemical Mfg. Company
163 Varick Street
New York N. Y.

**Improved Pocket Guide of Human Anatomy**




Contains fourteen lithographed plates in natural colors. Each part of the body and each organ is named in its various parts.

VISIT OUR DISPLAY ROOM AND MUSEUM

Size of Booklet—5½x3¼ in.
Genital Organs, Male and Female. Skeleton, front view. Skeleton, back view; joints. Muscular body, front view. Muscular body, back view. Torso opened, showing organs. Heart, Heart with Lungs, etc. Liver with Gall Bladder and Stomach. Blood and Nerve Systems, front view. Blood and Nerve Systems, back view. Spinal Column, Brain. Head and Neck, cross section. Ear—Eye.

For sale by Physicians and Laboratory Supply, Student Supply and Book Stores or sent postpaid on receipt of list price $1.00 or $9.00 per dozen. The previous edition, without Genital Organs, price 75c each, $7.20 dozen. State which desired.

*Catalogue of Charts, Models, Skeletons, Phantoms, etc., sent on request*

CLAY-ADAMS COMPANY
117-119 East 24th Street New York

# The A. P. E. A.

*(Continued from page 7)*

Colleges and Universities; National Collegiate Athletic Association; Bureau of Education, Washington; State Directors' Society; Women's Division of the N.A.A.F., National Recreation Association; and others.

This brings the situation up to the present time. In January, 1930, following the resignation of Dr. McCurdy who had been secretary-editor for twenty-four years, the following officers were in charge during a year of adjustment and reorganization: President, Dr. F. W. Maroney, Director of Health and Physical Education, Atlantic City, N.J.; Vice-President, Miss Mabel Lee, University of Nebraska; and Secretary-Editor, Elmer D. Mitchell, University of Michigan.

In the first place, the basis of membership was changed. Instead of the one membership at five dollars, two memberships were made available at two dollars and five dollars respectively. The two dollar *Active* membership gave a subscription to the Association's official publication, the name of which was changed to THE JOURNAL OF HEALTH AND PHYSICAL EDUCATION. This is an illustrated magazine which is issued during the ten months of the school year. The JOURNAL carries advertising and is devoted to a balanced inclusion of theoretical, practical and news articles.

A new publication was issued for the first time in 1930. This was the *Research Quarterly* which is issued in October, December, March, and May, to the five dollar *Professional* members, in addition to the JOURNAL OF HEALTH AND PHYSICAL EDUCATION. The *Quarterly* was inaugurated in answer to the demands of a group in the profession who have decided interests in the research and scientific field; and it was felt that the Association, if it was to assist in far-reaching professional progress, should encourage and publish the outstanding studies of this nature. In view of the rapidly mounting graduate work in physical education in our colleges and universities, it was also felt that the *Research Quarterly* would be a stimulus for more productive and scholarly work.

In addition to the two new memberships mentioned above, the Association permits Undergraduate Student memberships at a reduced rate. It is felt that this valuable contact will mean permanent memberships after the students have graduated into teaching.

Some other aspects of the program of the American Physical Education Association, in addition to the publication of these two journals, are as follows: Annual Conventions, Information Service, and Committee Projects.

The annual convention rotates between different sections of the country—the particular district association selected giving up its local convention for the one year to act as host to the National Organization. For example, in 1931, the National Convention was held at Detroit, in the Middle West District, and was a joint meeting; at the same time, the Eastern District, Southern District, and Far Western District, held their separate meetings. This arrangement is made to overcome geographical difficulties and to enable all teachers to attend a convention conveniently located. At the same time, however, the National Convention affords the opportunity for each district occasionally to assemble members and speakers from over the entire country. The convention not only has addresses by prominent educators, scientists, physicians, and social workers, but also has round table discussions and consultation services with experts in charge. Visitations to schools of the convention city permit the chance to see regular class work in health and physical education. Perfected demonstrations of the various phases of physical activity are also presented to the delegates.

Throughout the year the Association has a number of committees at work. Their duty is to assemble practical information on such subjects as Layout of Playgrounds and Athletic Fields, Swimming Pool Construction, Gymnasium Costumes, Athletic Programs for Girls, Suggested Athletic Programs for Boys, Sanitation of Swimming Pools, Corrective Exercises, Physical Examinations for Boys, Physical Examinations for Girls, and so on. These reports are published as articles and made available in reprint form at nominal cost. In this way, the experience of experts in each phase of the program and on many practical matters is made available to the teacher confronted with a special problem. In addition to this booklet material, the Association continues the policy adopted by Dr. McCurdy of furnishing information whenever possible in answer to the requests of members.

The present officers are: Miss Mabel Lee, University of Nebraska, President (the first woman to hold this honor); Dr. Jesse Feiring Williams, Columbia University, Vice-President; and Mr. E. D. Mitchell, University of Michigan, Secretary-Editor. At the present time the membership in the Association has grown to approximately seven thousand; the conventions are being well attended (there were over 2000 delegates at each of the last two National Conventions in Boston and Detroit), and the financial status is becoming more and more secure. The publications are reaching not only the heads of departments but the activity teachers as well and are finding their way into many city and school libraries. In short, the Association is accomplishing its purpose of increasing the professional welfare of health and physical education throughout the country, of bringing its literature and conventions to a larger membership, and of raising the standards of physical education, both in the selection and training of teachers and in the content of the programs being offered to the children.

## NOTE

On the page to the right appears a description of the organization of the American Physical Education Association. The full constitution with the by-laws of the Association appeared in the March, 1931, issue of HEALTH AND PHYSICAL EDUCATION.

# Organization of the American Physical Education Association

## OFFICERS

**Consist of a President, Vice President and Secretary**

## EXECUTIVE COMMITTEE

Consists of the officers, the immediate past President and the President of each district. In addition there are two members of the Legislative Council elected at large to the Executive Committee.

## LEGISLATIVE COUNCIL

Consists of the Executive Committee, one representative for each section and each affiliated organization, and 1 representative from each state or province association having 25 members, 2 from each association having 100 members, 3 from each association having 250 members, 4 from each association having 500 or more members.

## DIVISIONS

Consist of Districts, States, and Provinces (upon the basis of geographical distribution), Sections, and Affiliated Organizations.

**Districts, States, and Provinces consist of the following:**

EASTERN

Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

SOUTHERN

Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia.

PROVINCES

Canada

MID-WEST

Colorado,* Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota,* Ohio, South Dakota,* West Virginia, Wisconsin.

NORTHWEST

Idaho,* Montana,* Oregon, Washington, Wyoming.

SOUTHWEST (not yet organized)

Arizona, California, Nevada, New Mexico, Utah.

**Indicates states not yet organized.*

**Sections consist of the following:**

Public Schools
Recreation
Research
Teacher Training
Therapeutic
Women's Athletics
Men's Athletic*
Dancing*
Camping*
Swimming*

**Indicates sections not yet officially recognized*

**Affiliated Organizations consist of the following:**

Administrative Directors' Society

American Academy of Physical Education

National Association of Directors of Physical Education for Women in Colleges and Universities

National Association of Employed Officers of the Y.W.C.A.

National Collegiate Athletic Association

Society of Men College Directors of Physical Education

Society of State Directors of Health and Physical Education

Women's Division of the N.A.A.F.

Y.M.C.A. Physical Directors' Society of North America

# AROUND THE COUNTRY

## WITH J. E. ROGERS

**Mr. Kirk Montague in charge of Physical Education in Norwalk is developing one of the finest play programs in physical education. His after school playgrounds are very well developed. Mr. Montague has put on some very fine neighborhood and community play days.**

* * *

William F. Meredith, who has been taking his Doctor's degree at Teachers College, has accepted a position on the staff of the Department of Physical Education of the State College of Washington at Pullman. Mr. Meredith is working on "A Study of the Acceptance of Health and Physical Education for College Entrance Credit."

* * *

**The Southern Section of the A.P.E.A. will meet jointly with the Florida State Teachers' Association March 30-April 1.**

* * *

Appreciation by a Legislature
"Resolution
by
Wisconsin Assembly
on
State High School Basketball Tournament

WHEREAS, Throughout the entire tournament, while games were close and vigorously contested by all participants, there was the highest type of sportsmanship shown by all the teams and their coaches; now, therefore, be it

RESOLVED BY THE ASSEMBLY, That the assembly hereby express the appreciation of the state for the clean sportsmanship displayed, thereby reflecting honor on the teams, their coaches, and the high schools they represented, and extends its congratulations to the Wisconsin High School team and its able coach, Russel Rippe, on winning the state championship; . . . .

(Signed) Charles B. Perry
Speaker of the Assembly
C. E. Shaffer
Chief Clerk of the Assembly."

* * *

**The first International Congress of Recreation will be held at Los Angeles July 23 to 30, 1932, the week preceding the Olympics.**

* * *

*National Physical Achievement Standards*

In view of the present limited facilities of many school systems for conducting aquatic activities the National Physical Achievement Standards Committee has voted to suspend temporarily the water sports requirements under Group 4 of each test, and will award the national certificate to boys achieving the standards set forth in groups 1, 2 and 3. It is strongly urged, however, that where water sports facilities are available the events in Group 4 be conducted so that the full value of the four-fold program can be secured.

* * *

**W. K. Streit, Director of Physical Education in Cincinnati, is developing a fine 'esprit de corps' among his staff. He is holding regular meetings, planning picnics, and publishes a fine bulletin.**

* * *

Many schools and colleges are using the National Physical Achievement Standards. City systems have adopted these standards. A few of the cities that are now city-wide in the use of the standards are: Cincinnati, Ohio; Wilmington, Delaware; and Montreal, Canada.

* * *

**Hugo Otopalik of Iowa State College, Ames, has been most active in developing a strong physical education association in Iowa. He has also been active in trying to get a state director of physical education in that state.**

* * *

Joseph Lee, President of the National Recreation Association, was a prominent athlete at Harvard and was an amateur champion boxer in his college days. He is known as the father of the playground movement in this country and is looked upon as our great philosopher in the play movement.

*Ten Pertinent Questions in Physical Education*

(This is a testing time for all subjects in the curriculum. There are new needs making new demands. We must change education for an ever-changing civilization.)

*Question 1.* Because of our rapid changing civilization, what are the new needs in physical education?

*Question 2.* What does the educational administrator expect of the physical educator?

*Question 3.* How can the physical education program contribute concretely to the seven aims of general education?

*Question 4.* What contribution can physical education make to the new leisure? (There is a steady decrease in the hours of work and a rapid increase in the hours of free time. The 35 hour work week will soon be here. There are 168 hours in the week.)

*Question 5.* What are the six outstanding factors that make for a successful modern physical education program?

*Question 6.* How can we get results and measure our programs?

*Question 7.* How can we best put education into athletics and athletics into education?

*Question 8.* What are the things that hinder progress in our profession and what are we doing to overcome them?

*Question 9.* Are we doing everything possible to accomplish the greatest good to the greatest number—to help and not to hurt our boys and girls—to adapt a program to every boy and girl and to get every boy and girl into a program suited to his needs?

*Question 10.* How can we get those standards and requirements necessary for the proper administration of an effective physical education curriculum in general education?

* * *

**Do you know what the hobbies of some of our great leaders are? Well, Dr. Jesse F. Williams plays a hard handball game and a fine game of bridge.**

* * *

Dr. Charles B. Lewis is developing a splendid well balanced, all-round health and physical education program in Providence, R. I. Practically all schools, including the elementary, are being equipped with gymnasiums. Dr. Lewis has the hearty support and cooperation of Superintendent Stoddard and Deputy Superintendent Anderson. These two school administrators are enthusiastic supporters of the physical education program.

* * *

**Did you know that V. S. Blanchard of Detroit was one of America's greatest hurdlers and participated in one of the Olympics?**

* * *

George Butler of the National Recreation Association's staff says that playground space should not be measured in square feet, but in acreage. For instance 150 square feet per child would not be enough for a school of 600 pupils. This would only amount to about two acres, and such a school should have at least three acres. We make a mistake when we compute areas in square feet.

* * *

**W. E. Short, Director of Physical Education in Trenton, New Jersey, for many years, has been secretary of the New Jersey State Athletic Association, and has built up one of the best state associations in the country along progressive educational procedures.**

* * *

Nebraska has formed a state physical education association. Harold Lauritsen, director of physical education at Lincoln high school, was selected as president of the Nebraska State Physical Education Society, which was officially established as a state association at a meeting at the Chamber of Commerce. Miss LaDica Fitch of Scottsbluff high school was named vice president and Clyde Knapp, Fremont high school athletic coach, secretary. The organization is affiliated with the American Physical Education Association. Nearly fifty representatives

from various Nebraska points attended the meeting of the State Physical Education Society at the Chamber of Commerce, honoring J. E. Rogers, of New York City, who is field secretary of the National Recreation Association and the American Physical Education Association.

* * *

**Oberlin graduates have distinguished themselves in the field of physical education. What a notable list of national leaders they have given to our profession. A few of them of outstanding fame are: Doctors Thomas D. Wood, Jesse Williams, J. B. Nash, Nichols, Morrison, the famous two Fauver brothers, T. N. Metcalf of Ames, Pelton of Seattle, and many others. Apologies are here made to those other Oberlin graduates of fame not mentioned.**

* * *

Dr. A. K. Aldinger, Director of Health and Physical Education in the New York City public schools, is working on new courses of studies, especially in the elementary grades. A great deal of the formal work is being eliminated for the little children, and the program will largely be devoted to play activities.

* * *

**Clair K. Turner, Head of the Department of Health Education, Kansas State Teachers College of Emporia, has been appointed director of recreation for the summer session of his school. He plans to divide the student body into eight groups, each under the leadership of two members of the faculty. These groups will compete in recreational games during evening play periods, picnics, and in the physical education intramurals.**

* * *

Five of the ten staff members of the Women's Department of Physical Education of Iowa University have advanced degrees (one M. D. and four M. A.'s). Most of the others have gone a good way toward securing the Master's degree. Miss Halsey has accomplished the residence work for her Doctor's degree at the University of Michigan and is working on her dissertation on the subject of motor skills of girls from the ages of eight to eighteen.

* * *

**Miss Marjorie Camp has returned to the department at Iowa University after receiving her Master's degree from Columbia University.**

* * *

Miss Bodil Otto is a new member on the staff of the Department of Physical Education of Iowa. Miss Otto is from the school of Madame Bertram at Copenhagen, Denmark, where she taught after graduating from the course. Miss Otto is an accomplished swimmer and is trained to teach other sports. She was selected to assist in the training of teachers for physical education in the Polish schools during the year 1929-30.

* * *

**Three new high schools will open in Cleveland the second semester, each installed with both gang and a few individual showers for girls. This new departure was decided upon after a successful experiment in one school with gang showers for girls, over a period of three years.**

* * *

Lack of adequate swimming pools in the Cleveland schools does not prevent the Department of Physical Education from organizing after-school swimming classes for high school boys and girls. In cooperation with the municipal bath houses, teachers of physical education from the schools are given scheduled hours in which they may teach their own swimming classes. This is a voluntary activity for both the teachers and pupils, and at the present time the swimming hours are not only filled, but several schools are on the waiting list for next semester.

* * *

**The University of Iowa is one of the few universities which is serving as a local umpiring center for the rating of officials. The center was founded in 1929 through the help of the United States Field Hockey Association and has turned out a number of officially rated umpires since that time. An effort is being made to interest other teachers in the state in taking umpire rating examinations in basketball as in hockey.**

* * *

Dr. C. H. McCloy of the Department of Physical Education, State University of Iowa, was in Cleveland during the weekend of October 23. His visit was in conjunction with a course in "Tests and Measurements in Physical Education" conducted at the School of Education by Mr. Floyd A. Rowe, Directing Supervisor, Bureau of Physical Welfare, for men and women teachers of physical education. Dr. McCloy addressed the staff of men and women teachers of physical education at a general meeting on "Methods of Research in the field of Physical Education." An opportunity for individual conferences was given all staff members working on research problems.

THE NAME MOORE ON A GIRL'S ATHLETIC GARMENT HAS STOOD FOR THE ULTIMATE IN QUALITY, STYLE AND TAILORING FOR NEARLY A QUARTER CENTURY

Improve the appearance of your classes with Moore designed and guaranteed athletic apparel.

*Write for our new folder*

"GIRLS' GYMWEAR STYLED BY MOORE"

Prices are attractive.

E. R. MOORE COMPANY

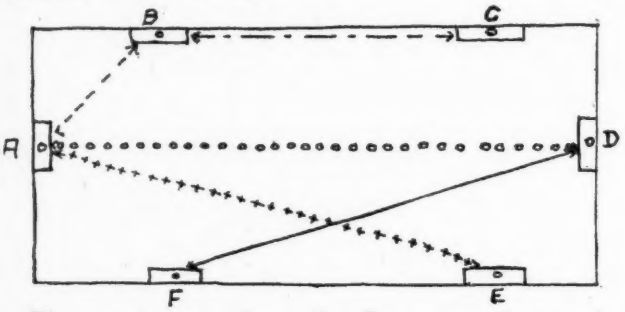
932 DAKIN STREET : CHICAGO

*"A quarter century of reliable service to the schools of the nation"*

# Basketball Skills

*(Continued from page 37)*

played in this situation but many of the elements of the game may be had. No referees are used and there are no out-of-bounds. The boys are put on their own honor and it will be found that they enjoy this procedure. Below may be found a diagram of team distribution. Only one game may be played between basket A and B; another between B and C; another between A and D, etc.




Players may use the entire floor space for passing but must shoot at the basket designated for their team.

Two or three different teams will be using the same basket, each in its own game, but it will be found that there rarely will be a mix up. Each game has its own basketball and plays independently of any other. It is hardly expected that one would play 15 games at one time but it can be done if so desired. Where there are but two practice baskets and two regular baskets one may adapt oneself to the situation.

### 13. Three, Two, One

This is a one basket, shooting game, best played with less than ten players. A line is marked off on the floor some distance away from the basket. Each player shoots in turn from behind the line. For the first round each man is given three chances to make a basket, the first shot being from the starting line and the other two being follow-up shots. If he is unsuccessful in putting in one shot of the three taken he is eliminated. If successful he survives to the next round. After each person has had three shots for basket the second round starts. This time, however, players are given but two chances to shoot and make a basket, the first shot being the long one and the second the follow-up. Players who survive this round, enter the last one, in which but one shot is allowed. If no one scores a basket in one shot, they may take as many shots as are necessary to score a basket. The person making a basket in the least number of tries wins.

### 14. Twenty-One

The above game may be played in various ways. It is a one basket shooting game.

a) *Long shot and follow up.* A line is drawn on the floor, back of which all shooting must start. The object of the game is to take a long shot which, if made, scores 2 points and a short shot which, if made, scores 1 point. Each basket made scores the points allotted it. The players shoot in turn. The person to run up 21 points first, wins.

b) *Premium long shots.* Played as above except that if the long shot is made the player scores 2 points and is awarded another try for a long shot plus the short shot.

c) *Foul line 21.* Shoot until you miss from the foul line scoring 1 point for the first; 2 for the second; 3 for the third; 4 for the fourth, etc. 21 points win.

d) *Partner 21.*

*Type 1*—played as in A except that the sum of score of both partners is added to form the total score.

*Type 2*—one man takes the long shot while the partner takes the follow-up. Next time the partner takes the long and the other exchanges for the short shot.

*Type 3*—4 boys. One man shoots for basket from the foul line, scoring two points if he makes the shot. If successful he continues shooting, scoring two points each time he makes a basket. If unsuccessful a man of the opposing team attempts the follow-up shot, which counts one point if made and also entitles him to take a foul shot (which counts 2 if made) till he misses. Should he have missed the follow-up shot, then a member of the first shooting team follows up; if he misses, then a member of the second team follows up. In other words a man keeps shooting till he misses a foul shot and a member of the other team is allowed to follow it up—if he misses, then the original team follows the ball up; if successful he is given a chance to shoot foul at two points each till he misses. 21 points win.

### 15. Freeze Out or Elimination

a). *One in and one out.* The type shot for basket is agreed upon beforehand. It may be a dribble shot for basket, a foul shot, a pass and cut shot for basket or a long shot for basket. The players line up one behind the other. If the man in front puts the ball in, then the next man in turn must put the ball in the basket. If he fails to do this he is eliminated. If he puts it in, then the next following man must put the ball in. However, if the man in front of him does not put the ball in, the man following is not compelled to either. If a man is eliminated for not shooting a basket, then the next man in line does not have to shoot a basket, inasmuch as the man in front of him did not shoot his basket. The game continues until all but one player are eliminated.

b). *One in and two out.* Same as above, except that if one man shoots a basket then the next two players must shoot a basket or be eliminated. This is quicker than the first.

c). *All in or out.* In this game all players must make all shots or they are eliminated. Last one in line wins.

### 16. Spot Basket Golf

a). *Single spot ball.* Shooting spots are marked off on the floor around the basket shooting zone. Each spot is numbered consecutively. The object of the game is for a boy to start at spot number one and shoot for basket; if successful he advances to spot number two and continues shooting. If unsuccessful, the next

boy in turn is given a chance. As long as a player keeps making baskets, he continues around the "course" shooting till he has completed shooting from all the spots. If a player fails at the third spot, for example, then the next time around he starts at spot number three.

b). *Spot team ball.* Spots are marked off as before but teams compete against one another for time. Two or three teams of seven or eight boys may compete at one time using the same basket. Each team lines up behind its leader on spot number one, with each team having a ball. One member of each team stands under the basket to throw the ball back. At a given signal each leader shoots for basket from area or spot number one. If he successfully makes it, he and his entire team advances to area number two. If he is unsuccessful, number two man on his team takes a shot for basket from spot number one. If he is unsuccessful, number three man takes a shot, etc., until some one man makes a basket. As soon as a basket is made the entire team moves up to the next shooting area and the person making the last shot is given a chance to make this one. Each person in turn takes a shot until someone makes it, etc., until all the areas have been covered.

### 17. Spot Point Ball

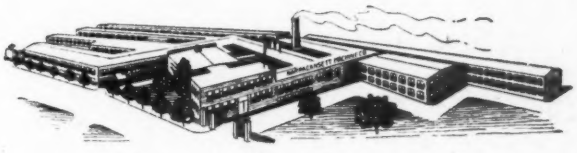
Shooting spots are marked off around the basket shooting zone. These spots are numbered consecutively. Each man in turn starts shooting from spot number one. If he successfully makes the basket, he is awarded one point. If unsuccessful no point is awarded, yet he advances to spot number two and shoots from there. A successfully made basket at spot two, counts two points. Whether the basket is made or missed he advances to spot three. Points are scored according to the corresponding number on the shooting spot. Each shooter goes the complete round shooting from each spot and scoring only the baskets which he made.

### 18. Shooting Against Time

a) Contestant stands at foul line and at a given signal shoots for the basket. He then proceeds to follow up his shot, and continues shooting until twenty seconds have elapsed. The shooter is accredited with the total number of successful baskets made. In this contest it is advisable for the timer to use a stop watch.

b) The same game may be played with the stipulation that the player may continue to shoot against time as long as he successfully makes each basket. As soon as he misses one he is eliminated. The player shooting the highest score wins.

c) Another variation is to have the player shoot his follow-up shot from the side of the basket where he gets it. The next shot must be taken from the opposite side of the basket thus necessitating a dribble from one side of the basket to the other on alternate shots.

# Our Reputation Is At Stake!

But there's no cause for alarm . . . it has been for almost fifty years! That's the feeling we have when we commence work each morning, producing the finest Gymnasium Apparatus we know how, doing our best to co-operate with Physical Directors everywhere in their splendid work of building better bodies and making better citizens!

Narragansett's reputation is, in itself, an iron-clad guarantee that Narragansett's friends are going to receive everything that goes with their order . . . whether it is in writing or not!

THE NARRAGANSETT MACHINE CO.

PROVIDENCE, R. I.

*Chicago:*
1504 Monadnock Block

*New York:*
214 East 40th Street

Please mention HEALTH AND PHYSICAL EDUCATION when writing advertisers

# « "How We Do It" »

## Recreation for Business Men

MOST directors of physical education in small cities and towns are called upon to organize or conduct gymnasium classes for the business men of the community. The method of approach in these classes is somewhat different than that required for school classes. Rutland, Vermont, boasts of a rather unique organization of this nature known as the Mercury Athletic Club. This club caters to the young athletes and older business men of the community.

Unlike the "Y" and other similar classes, there is no formality in starting or finishing. As the men enter the gymnasium they take a turn as fielder in indoor baseball and work up as in rotation games such as "one, two, one." When enough are present the president appoints two captains, who go aside and choose teams unknown to the players until the last man is chosen. Then the game of "one, two, one" is given up and those on the first side at bat are called in and a game of sides takes place. This does away with the embarrassment of being the last one chosen. The late arrivals take their places as they come in the door, the first on the side at bat, the next on the opposite side, etc. This goes on from 4:30 until 6, when the leader lines the group up for a short exercise period of not more than ten minutes, followed by three ten-point games of volleyball, played with modified rules. Afterward, those interested in basketball line up and count off by two's (the one's being on one side and two's on the other) for about eight minutes of play, using old-timers' rules. This is all over by seven o'clock when supper is served. Although physiologically wrong, this is the big event of the evening.

After the shower, a committee appointed the previous week, that had met with the committee serving the supper and outlined what it wanted, serves the meal in cafeteria style. Each member pays fifty cents for the supper, which fully covers the expense of serving ($3 to cook, $1 for having dishes removed and washed, and the cost of food).

A membership fee of $3.50 is charged for the use of lockers, $100 goes to the community house for the use of building, suits, and expenses of teams and equipment. There was a small credit balance on the books at the end of the year.

After supper, the younger members who are interested in a higher type of basketball form a varsity team and play other organizations for the entertainment of members. No guarantees are made or expenses involved. When out-of-town games are played, autos are solicited by members. A bowling team, representing the club, is entered in a city tournament, playing at its own expense, and in the summer a representative team is entered in the twilight baseball league. A group of members play a group from the Sutherland Club, Proctor, in volleyball, indoor baseball, bowling, and basketball, with return engagements the following week. Every new man is welcomed and the pitchers in indoor baseball, who are never allowed to pitch more than two innings at a time, are instructed to throw the ball easily and allow the new man to hit it.

Richard F. Hayden,
Rutland High School, Rutland, Vermont.

* * *

## Outline for Gymnastics

### P. E. Major Courses

FIRST YEAR

Course A. Fall
- Calisthenics
  - Hygienic drills
  - Conditioning drills
  - Mimetic drills
  - Story plays
  - Corrective
  - Exhibition drills
  - Practice teaching
  - Flexibility exercises
  - Nomenclature
- Stall bars
- Mats
- Traveling rings

Course B. Winter
- Calisthenics with light apparatus — wands, clubs, dumbbells
- Marching
  - Schrader's tactics
  - Methods of opening order, etc.
  - Fancy marching
  - Maize running
  - Marching rhythms
  - Marching and calisthenic movements combined
- Dancing
  - Single dance steps—Mazurka, Schottische, Fling, etc.
  - Line and circle dances
  - Acrobatic
- Low bar
- Parallel bars

Course C. Spring
- Stunts (with and without equipment)
  - Indoors
  - Double
  - Triple
  - Combat
- Buck
- High bar

SECOND YEAR

Course 19. Fall
- Games
  - Non-team with and without equipment
  - Team combat with and without equipment
  - Team non-combat with and without equipment
  - Relays with and without equipment
- Side horse
- Flying rings

Course 20. Winter
- Relays
- Pyramids
  - Free — Horse
  - Mat — Parallel bar
  - Wand — Horizontal bar
  - Chair
- Long horse
- Ropes

Course 21. Spring
- Review of previous quarters
- Methods of squad organization
- Phy. Efficiency and motor ability tests
  - McCurdy's — Brace's
  - Canadian — Rober's
  - Cozen's
  - Badge Tests of P.R.A.A.
  - California Decathlon
- Practice teaching in all phases
- Day's order

R. A. Piper,
University of Minn.

* * *

## Endeavoring to Meet Individual Needs in Program for School of 8,000

IN a large school it is customary to give in to the various exigencies of the complex situation and follow the line of least resistance, which is the regimentalized forcing of every individual through a routinized schedule. The J. Sterling Morton High School of Cicero, Illinois, which has over 8,000 pupils in its various departments, is attempting to meet individual needs in physical education and health through the following devices:

I. The classes are organized according to the pupil's grade in school with an especially graded program designed to meet individual differences in age and sex. The children, during the twenty school days of each month, devote eight days to the more formal aspects of the program, which includes fundamental rhythms, fundamental game skills and fundamental gymnastics; eight days are devoted to well-organized programs of sports; two days to swimming and two days to hygiene. In hygiene classes, motion pictures are used for a part of the one hour period. All of this work is departmentalized so that each child gets each part of work under the direction of one whose training, interests and natural ability render him best fitted to direct his department of the work.

II. The regular classes are also graded according to motor ability test scores obtained by administering a balanced battery of motor tests during the first week of each semester. Those of low motor ability are placed so that they are in competition with their physical peers.

III. In addition to the above which takes care of the majority of the pupils, there are seventeen special classes to take care of those who (on account of postural defects) need a course of individual gymnastics, two classes for cardiac

cases, two for pupils who are decidedly underweight, nine classes in which the pupils recommended by the doctor recline on cots for a period that breaks up their school day, with full physical education credit, two classes for those who need special attention to foot defects, two classes for those who need a portion of their time devoted to postural work, a class for the very little boys, a class for the very little girls, and two classes for pupils decidedly overweight and for whom because of low motor ability, special classes are desirable.

For all this work we use three large gymnasiums, six small gymnasiums, one swimming pool (which should be duplicated for we are in great need of another), and two large playgrounds.

In addition to the above described activities practically every pupil in the school, except those excused by the doctor for physical reasons, participates in intramural contests—of which there are plenty in every sport during the school year.

W. P. McLean, Director
J. Sterling Morton High School
Cicero, Illinois

* * *

# Ethics Report

*(Continued from page 29)*

To refrain from discussing the deficiencies of one's colleagues in such a way as to embarrass them.

To practice absolute and unqualified loyalty to the school and department in which one is employed, and to the profession.

To insist that one's salary be paid through regular institutional channels, and not directly from alumni groups, local school supporters, or athletic gate receipts.

To refuse to promise a position to a candidate until it is authorized by the proper authorities.

To recommend a teacher for another position although it may be desired to retain him (her) in one's employ.

To refrain from dismissing, or recommending for dismissal, a teacher without giving ample notice and an opportunity to be heard.

To actively support all movements directed toward an improvement and elevation of the profession.

To be definite in the exact type of work expected when employing a teacher.

To defend members of the profession if unjustly attacked.

To maintain membership in and attend meetings of such professional associations as cover one's field of specific interest.

To maintain a non-committal policy in public on all controversial issues arising within the school.

To extend professional courtesy, including the prompt answering of mail, to other members of the profession at all times.

To accept a position only if one is qualified to handle it effectively.

To refuse to discuss matters of student discipline with anyone except the proper authorities.

Recommendations:

1. Select those items upon which there is definite agreement as to ethical value (items where the $Q_1$-$Q_3$ range is not greater than two points) and print them at least once a year in a prominent place in the JOURNAL OF HEALTH AND PHYSICAL EDUCATION.
2. Print the entire code and distribute it to teacher training institutions, school authorities on all educational levels, and to various organizations engaged in the promotion of health or physical education.
3. Wage a campaign through the JOURNAL OF HEALTH AND PHYSICAL EDUCATION designed to create a consciousness regarding professional ethics, and the desirability of including a discussion of this subject in the curricula of teacher training institutions.

**Russell Sage College**

**School of Physical Education and Hygiene**

***Formerly The Central School of Hygiene and Physical Education***

**Offers**

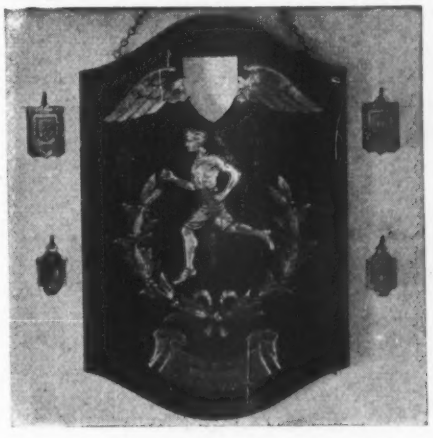
**A Four Year Course leading to the B.S. degree in Physical Education**

IN September, 1930, the Central School became a definite part of the college in Troy, New York. The first two years of the course are devoted largely to cultural subjects and the last two years to technical training. The faculty of the Central School including Miss Helen McKinstry, B.S., Director, continues with the school in its new home.

*For catalogue address*

**MISS DORIS CROCKETT, Registrar**
**Russell Sage College** **Troy, New York**

CREATIVE JEWELRY DESIGNS MANUFACTURERS



WE ARE prepared to execute, on order, special and standard types of creative work in trophies, medals, plaques, or tokens. The very highest quality workmanship is provided at prices that are reasonable and attractive by comparison.

**WEYHING BROTHERS MANUFACTURING COMPANY**

Mfg. Plant: Gratiot at McDougall
Office and General Salesroom: 1507 Woodward Ave.
PHONE: RANDOLPH 9840-41 DETROIT, MICH.

# It May Interest You to Know---

THE "Tenth Olympiad" will be held in Los Angeles, from July 30 to August 14, 1932. Now is the time to make reservations for season tickets. The ticket department of the Olympic Games Committee is in the W. M. Garland Building, Los Angeles, California.

* * *

A FULL tuition scholarship of $500 is available in the field of health education at Massachusetts Institute of Technology (Department of Biology and Public Health) for 1932-33. This scholarship covers the full scholastic year, beginning in September and closing in June.

This scholarship will be awarded to a candidate recommended by the National Tuberculosis Association. Applicants should have basic training in mathematics, physics, chemistry, and biology. The awards will be based upon the nature and quality of the previous academic work of the applicant, personality qualifications for professional work in the field of public health, and need of scholarship aid. Preference will be given to candidates possessing the Bachelor's degree.

Through an affiliation between Massachusetts Institute of Technology and the undergraduate School of Education of Boston University and the graduate School of Education of Harvard those who wish to take courses in education while studying at the Institute may do so without additional fee at either Boston University or Harvard.

The scholarship will be awarded in June 1932 and applications should be received not later than May 15th. All those who are interested in this scholarship are invited to write to the Child Health Education Service of the National Tuberculosis Association, 450 Seventh Avenue, New York, for blanks.

* * *

A BLUEPRINT giving the standard dimensions for all sports may be obtained from the Ontario Athletic Commission, 15 Queen's Park, Toronto, 2, Canada.

* * *

MR. Henry Panzer, President of Panzer College, has sent for publication the following comments on two of the articles which appeared in the October Journal:

"I should like to take this opportunity to congratulate you upon securing for the October edition of the JOURNAL two excellent contributions, 'Trends in Physical Education', Rogers, and the editorial, 'Should Teachers Teach?', Schrader.

"It is my opinion that Mr. Rogers has advocated a well balanced program in physical education that can be directed to serve the objectives of physical education. It is a program based on the use of fundamentals, tried and tested in the past, co-ordinated with the advances, progress and adaptations essential because of our changing civilization. It advocates growth and evolution rather than revolution. Clarity of analysis, common sense, and fact support the truth of his statements.

"Mr. Schrader's article suggests to me this thought: if the objectives of physical education are to be realized there must be teaching and discipline. This is a self-evident biological fact.

"At the same time I should like to make a correction in Dr. Staley's article entitled 'Sports in Europe'. The picture on page four (14,000 schoolgirls in 'athletic' exhibition, Prague, Czecho-Slovakia) is labelled incorrectly. It should be in 'gymnastic' exhibition.* This is a minor correction involving just one word, yet in this case, that word conveys fact. Mass gymnastics, as I observed on my visit to Czecho-Slovakia, forms a large part of the nationalism of that country, as it does in Germany and Switzerland. Another error I should like to bring to your attention is in the first paragraph, page seven, of the same article, beginning 'Gymnastics (that is the doing of stunts on apparatus and similar activities).' European gymnasts do not consider their exercises on apparatus 'Stunts.' They are highly co-ordinated exercises usually composed of eight or nine parts developed after mastering the fundamentals of good form in gymnastics. What I especially observed was the relaxed and graceful way in which these exercises are now performed. This is, as I was assured by various authorities, the outcome of the newer method of execution of the free-standing work.

"I am glad to know that many of our countrymen are now studying conditions and situations on the other side. On the whole Dr. Staley has made a distinct contribution in his report on 'Sports in Europe'."

* Editor's Note: This picture with its use of the word "athletic" was taken from a different collection than the one submitted by Mr. Staley.

* * *

PHILADELPHIA is already making elaborate plans for the American Physical Education Association Convention, April 19–23, 1932, and is looking for a larger attendance than ever. The Convention program giving detailed information of all activities starting Tuesday morning and ending Saturday at noon will be published later.

All day Tuesday and on Wednesday morning, April 19 and 20, visits to schools and other places of interest in and around Philadelphia will be conducted by the local committee.

The Convention officially starts Wednesday noon and ends Friday night, thus giving a full week-end to visit historic Philadelphia and points nearby. A trip to Valley Forge, with local teachers as hosts, is being planned for Saturday morning. For those wishing to leave the city, Atlantic City is one hour by train, New York two hours, and Washington, with its "Cherry Blossoms," is three hours. Excursion rates to these cities are very reasonable, for example, the daily round trip excursions to Atlantic City cost only one dollar and afford the privilege of returning on several different trains.

A number of discussional demonstrations and a monster demonstration of activities by public school and college students will provide much that is interesting and valuable to teachers in the field.

In making your plans for the Convention, drop a note to your classmates and arrange for a class or school reunion. Also now is the time to start budgeting for your expense account.

The Convention is only three months off and it is not too early for teachers to make plans now. Make your real Spring Vacation a trip to the Convention in Philadelphia, April 19-23, 1932. Hotel reservations may be made at any time.

WHAT — AMERICAN PHYSICAL EDUCATION ASSOCIATION CONVENTION.

WHEN — APRIL 19–23, 1932.

WHERE — PHILADELPHIA, PA. — Headquarters, Benjamin Franklin Hotel.

# A Health Issue

*(Continued from page 17)*

in our efforts to do something for these so-called problem children, the most interesting and spectacular work—we must not miss any of the small opportunities for driving home the fundamental attitudes which lead to right thinking and right acting. If the boys and girls with whom we play, go out and break laws as a habit, and get their greatest pleasure in so doing, it is time for us to "play at" some other profession where we can do less harm.

G. *The children must be taught true facts about all phases of health, in order that they themselves may take initiative in matters affecting their own health, and the health of the community.*

Even if you are not called upon to teach a class in "hygiene" you have opportunities all day long to make practical applications of the facts being carefully

taught in the science and civics classes, or in the conferences with the doctor, the nurse or the health counselor. This does not mean that it is safe to rely upon the facts you learned during your professional training. Keep up with the times not only by reading your professional books and magazines, but what is perhaps more important, by being a working member of the school health committee and by talking with the doctor, the nurse, the science and civics teachers and the health counselor, and making every effort to get their points of view.

If the hygiene classes do fall to your share, there are two determinations to make—first, to bring yourself up to date by study and by asking for advice. The reports from the White House Conference on Child Health and Protection already referred to in this paper, are written by people who are experts, and you will find these books a mine of wealth. Textbooks have changed greatly during the last few years, and are most helpfully written with emphasis on interests of children. Courses in educational psychology, and in general educational methods, are especially helpful to teachers who are trying to guide children in the formation of right health habits. Courses in mental and social hygiene and the application of knowledge in these fields as understood by the best psychiatrists are quite essential. The danger in psychiatry lies in becoming so interested in abnormal children that the great value of applying these same principles to all teaching is lost. Every child should have the careful study that is now given to the exceptional child, but if this is impossible we can make ourselves better teachers of all children by a thoughtful use of underlying principles. Now that we are breaking away from our old easy methods of formal teaching we are in great need of a thorough understanding of children from every angle. When we were content to teach them as "classes," giving to each child exactly the same dose, we needed a good memory and a forceful personality in order to be a success. Now we need something quite different, something that perhaps we are born with, as a good start, but something too that we must work for with great intelligence.

Your second determination should be that you will make your hygiene courses a part of an integrated health program if there is one already working within your school. Surely you can make your teaching help out the work of the doctor, and the nurse. I have known situations where the nurse and the physical education teacher were working against each other; the nurse thinking the activities far too strenuous for the weaker children and so trying to keep them out altogether, while the physical education teacher considered the nurse an interfering molly-coddle. And too, teachers of physical education have been known to aid and abet "good team material" in evading medical advice. Such anti-social behavior has more devastating effects than four years of daily "gym work" can ever eradicate.

Your second determination, beside being one of cooperation with present school health measures—is to


**Wellesley College**

***Graduate Department of Hygiene and Physical Education***

**Certificate in Hygiene and Physical Education**

A two-year curriculum is offered to graduates of colleges and universities who present prerequisite work in chemistry, physics, psychology, and education.

**M.S. in Hygiene and Physical Education**

Graduate students qualified for advanced study and research may undertake and complete work leading to the degree of M. S. in Hygiene and Physical Education in addition to the work for the Certificate. Graduate students who have had preparation in the field of Hygiene and Physical Education equivalent to the requirements for the Certificate, and who are qualified for advanced study and research, may register for and complete, in one or two years, the twelve-year hours required for the degree of M. S. in Hygiene and Physical Education.

**Certificate and the B.A. Degree**

A five year program in liberal arts and physical education leading to the B. A. degree at the end of four years, and to the Certificate, and in special cases, the M. S. degree at the end of the fifth year.

For information, address Graduate Committee,
WELLESLEY COLLEGE, WELLESLEY, MASS.

**Mastercut UNIFORMS**

***For* ATHLETIC GIRLS**

**Made of the Famous**

**PETER PAN FABRICS**

Millions of women know the virtues of PETER PAN FABRICS . . . their style, their wearing qualities, and the famous guarantee; "We will replace any garment made of genuine PETER PAN if it fades." Mothers, students, and instructors rejoice in the news that it is now possible to obtain MASTERCUT Athletic Uniforms in PETER PAN FABRICS.

Specify MASTERCUT Uniforms because they are *made right, look right,* and wear for years.

***Style Folder and Cloth Samples Free***

**IHLING BROS. EVERARD CO.**

**Kalamazoo, Michigan**

# ITHACA COLLEGE

***School of Physical Education***

FOUR year course leading to the Baccalaureate Degree in Health and Physical Education. Large faculty. Unusual opportunities for practice teaching and observation of athletic activities. Coeducational. Dormitories for girls. Two athletic fields. Two gymnasiums. Three months of instruction at camp part of regular curriculum. School represented in intercollegiate varsity competition. Graduates in demand. Pupils admitted in September and February.

***Spring Term Opens February 11***

*Send for catalog*

**Laurence S. Hill, Dean**

**226 DeWITT PARK ITHACA, N. Y.**

## The Sargent School of Physical Education

of

## Boston University School of Education

***51st Year***

THOROUGH and complete four-year course in the theory and practice of Physical Education, resulting in the academic degree of Bachelor of Science in Education. Five months of instruction at Camp. Major course in Physical Therapy. For young women graduates of high school, with particular qualifications. New dormitory.

School Appointment Bureau for graduates.

**PROFESSOR ERNST HERMANN, *Director***
**6 Everett Street, Cambridge, Mass.**


stimulate and promote an integrated health program. Let me give you a quotation which is the best definition I know of this complicated idea of integration. I am taking this from a report made by Miss Anne Whitney, Director of the Health Education Division of the American Child Health Association, after an extended field trip in Porto Rico. "Integration implies the existence of definite differentiation in the approach which separate units may make to a common goal. Essentials in Integration are:

A common purpose
Mutual understanding and agreement on basic principles and objectives
Joint consideration of common problems
A mutually recognized differentiation in function and responsibility." *

You may or may not be the proper person to head up such a movement. Under any circumstances it must come from the principal of the school and come from him because he and his faculty are convinced of its necessity. Sometimes pressure from without is brought to bear through community or national organizations, but until the school itself is eager for it and looking voluntarily for outside guidance this method does not reach to the heart of things, and is not likely to be a success. In other words this is apt to fail because it is the old way of imposing something from the top. There comes a time, however, in a real health program, when outside help is invaluable. So you need to take a course in "International Diplomacy" in order to become the key person in this situation, and do not forget that the background may after all be the best place from which to do your work.

At all costs do not take yourself too seriously and do preserve your sense of humor.

* "The School Health Program of the Island of Puerto Rico."—Anne Leslie Whitney.

## Fitting Feet for Play

*(Continued from page 31)*

activities but should be subject to inspection, re-inspection, and education, just like the severe cases.

To insure absolutely clean surroundings, floors, drain racks, rubber mats and other surfaces where feet constantly tread must be regularly scrubbed and scalded whenever possible. Rapid drying is important. A two per cent formalin solution, applied to these surfaces for half an hour daily, will kill all ringworm spores. When this disinfectant is used, the room must be sufficiently well ventilated to disperse the formalin fumes and the solution must be flushed away before the room is used again. It seems hardly necessary to add that bathing suits and towels should be carefully laundered after each use.

Shower baths with warm water and soap should be required of everyone before permission is granted to enter a swimming pool. All persons participating in gymnasium activities should be compelled to wear sandals, socks, or other foot covering. Single service paper sandals or slippers that can be boiled or sterilized in some way after use will aid in averting in-

fection. The fungus has been found on ordinary slippers months after they have been put aside.

But no matter how strict the rules of the gymnasium, if daily habits are careless it is difficult to get rid of the infection. Those who suffer from ringworm should be advised to follow as rigorous a regime of protection at home as when they are actually under supervision. Since the fungus is frequently transmitted through mats and floor surfaces, no one should go barefooted around the house, except to bed and when actually in the bath tub. If a skin lesion is present on the feet or the toes, further infection may be avoided by drying them in the tub instead of stepping first on the mat or the floor. Drying the body before wiping the feet will prevent contamination from the towel. One towel for the face and another for the feet, each to be used only once, is a wise precaution. Thorough cleaning and scalding of the bath tub is another point to be emphasized. Since the fungus is readily killed by a temperature of 49 to 51 degrees Centrigrade when it is in the open and can be removed by careful washing and drying if no actual invasion of the skin has taken place, bathing the feet every day is an important preventive measure. Soaking them for five or ten minutes in a salt water rinse will bring added comfort. The skin between the toes should be carefully dried and dusted with a little powder. Clean undergarments, frequently changed bed linen, stockings or socks of light weight which can be washed daily and allowed to remain for fifteen minutes in hot water, will aid in combatting the spread of the micro-organisms. When the case is serious, the infected person should sleep alone.

Although the disease is by no means new, until recent years little was done to counteract its spread because it was attributed to other causes. Even dermatologists have realized only within the last fifteen years or so that many cases which had been treated as eczema or chafing were really fungus infection due to ringworm. In the light of present knowledge, it is likely that the fungus was prevalent before the war and unquestionably the congested quarters of military life, the unavoidable dampness in camps, the necessity of going for days with sweat-soaked socks and water-soaked shoes offered ideal circumstances for its growth. Fortunately these unnatural conditions no longer exist. The peace-time army of recreation seekers can be mobilized in sanitary surroundings and rigorous rules of cleanliness enforced to prevent, in some measure at least, the spread of irritating disease.


**DWIGHT POSTURE MODEL**

With Directions for Using

Medium weight cardboard figure, jointed at knees and elbows, at the junction of head and neck, at the shoulder joint and to show dorsal curve and pelvic tilt. PRICES: 17 in. size, 50 cents postpaid, $35 a hundred.

Send check or money order—not stamps, to:

MISS E. DWIGHT

Box 4405 Brookland Washington, D. C.

# PREVENT RINGWORM

of the Foot or

# "ATHLETE'S FOOT"

By means of Hypochlorite method which is being used so successfully in the Buffalo Schools.

We offer the original Patterson Foot Bath in a wide range of sizes and prices to fit any budget. Tested by actual use and guaranteed to stand up under hard service.

Save money by making up your own hypochlorite as required. We will furnish complete instructions without obligation upon request.

## T. A. Patterson Laboratories

1571 Merwin Ave. Cleveland, Ohio

# Four Year Program

*(Continued from page 35)*

six combinations of the simple combinations into complete pyramids.

Sophomore I. Individual Athletics, Athletic Team Play, and Beginning Swimming.

1. First Six Weeks (Outdoors).
   a. Introductory Unit. Play playground ball work-up, soccer and hockey two weeks each, using elements taught in the Freshman year.
   b. General Activity. Corner running, jumping, throwing, catching, kicking and climbing events; the first three weeks for instruction, the second for practice.
2. Second Six Weeks. Swimming for schools with pools, covering instruction in overcoming fear, breathing, bobbing, deadman float, dog paddle, under and over arm.

   Schools without pools repeat activities of the first six weeks period, alternating one day playing the game and the other individual events, depending on the weather conditions, which will govern indoor or outdoor activity.
3. Third Six Weeks (Indoors).
   a. Introductory Unit. Play volleyball, captain ball, and basketball, using the elements taught during the Freshman year.
   b. General Activity. Cover traveling, high jumping and kicking, accuracy goal throwing, courage, balance, and speed events.

Sophomore II. Social Service, Intermediate Swimming, and Athletic Team Technique.

1. First Six Weeks.
   a. Introductory Unit. Basketball team technique, playing keep-away, passing and shooting with keep-away, team lineup, and six play formations.
   b. General Activity. Social rhythms. Teach six social dances and variations built around the waltz, one step, two step, fox trot, and two modern dance steps arranged from the four.
2. Second Six Weeks.

   Schools with pools teach intermediate course in swimming covering instruction in floating on the back, swimming on the back, side stroke (under arm), side stroke (over arm), plain dive and front jacknife dive.

   Schools without pools teach social stunts and games such as Skin the Cat, Newcomb, Jump Wand, Longball, Follow the Leader, Back to Back, Going Over, Club Snatch, Jump the Shot, Peanut Relay, Balance Feat and All Up Relay.
3. Third Six Weeks.
   a. Introductory Unit. Volleyball team technique, covering serving and batting, playing two passes and spiking and net ball, bat and spike.
   b. General Activity. Social programs covering activities while guests are gathering, methods of introductions after guests have arrived, methods of mixing guests, contests and stunts, games and refreshments.

Junior I. Modified Athletic Games and Advanced Swimming.

1. First Six Weeks (Outdoor).

   Select, from Freshman course, from Sophomore II games, or from other sources, three games appropriate to outdoor play, covering one for two weeks.
2. Second Six Weeks.

   Schools with pools; advanced swimming, covering back stroke, crawl, head carry and break for front strangle hold.

   Schools without pools may select three other games suitable for either indoor or outdoor use, covering one for each two weeks.
3. Third Six Weeks (Indoor).

   Select, from previous Freshman and Sophomore games or from other sources, three appropriate team games for indoor conditions, covering one for each two weeks.

Junior II. Combatives and Athletic Squad Technique.

1. First Six Weeks.
   a. Introductory Unit. Basketball warming up team play, combining running, passing, catching, dribbling, pivoting, and shooting.
   b. General Activities.

      Boys—Boxing, covering conditioning exercises, stance, shadow boxing and six fundamental punches and parries—one for each week of the six week period.

      Girls—Dancing, teaching a simple gymnastic, clog, and couple dance.
2. Second Six Weeks.
   a. Introductory Unit. Stunts adapted to social parties, including hand wrestling, pulling wands, duck fight, foot wrestling, pulling ball, wand pushing, wand wrestling, mount wrestling, single tug, rooster fight, one leg hand wrestling, etc.
   b. General Activities.

      Boys—Wrestling, consisting of preliminaries similar to boxing and six fundamental holds; three mat holds and three standing holds.

      Girls—Fencing, consisting of preliminaries and of six simple attacks and parries.
3. Third Six Weeks.
   a. Introductory Unit. Playground ball in set-ups of team warming up, base throwing, hunting and fielding, and scrimmage in "work-up."
   b. General Activity.

      Boys—Spear throwing, using the javelin, and shot putting.

      Girls—Archery with instruction in preliminaries, technique, development and informal competition.

Senior I. Adult Sports and Recreation Activities and Officiating.

1. First Six Weeks.
   a. Introductory Unit. Officiating (general). Important rules, fouls, violations and penalties in games commonly used in school intramurals.
   b. General Activity. Six early adult games—one for each week of the six week period: Handball, Tennis, Playground Ball, Horseshoes, Horseshoe Golf and Pall Mall.
2. Second Six Weeks.
   a. Introductory Unit. Refereeing and umpiring, covering the duties involved in officiating; arrangements before the game, starting the game and tossing the ball; position on the floor at start of game, free throw and in play; methods of covering the floor and cooperation of officials.
   b. General Activity. Six later adult games, one for each week of the six weeks period: Croquet, Pendulum, Shuffleboard, Curling, Pin Bowling and Floor Baseball.
3. Third Six Weeks.
   a. Introductory Unit. Practice officiating, covering materials under the first two six week periods, emphasizing methods of detecting fouls, where to look for most flagrant violations, and demonstrating suggestions for improvement.
   b. General Activity. Three old time dances—one for each two weeks of the six week period: Schottische Couple Dance, Highland Schottische, and Virginia Reel.

Senior II. Playground and Recreation Activities; Officiating and Leadership.

1. First Six Weeks.

   Programs as reviews made up of materials covered during the previous semesters, adapted to school functions in which physical education activities may be used; costume party, open night, family night, circus, vaudeville, demonstration, and play day.
2. Second Six Weeks.

   Meets, as review, drawing up materials covered during

INTERNATIONAL

## Young Men's Christian Association College

SPRINGFIELD, MASSACHUSETTS

J. H. McCURDY, M.D., *Director* GEORGE B. AFFLECK, *Associate Director*

**EQUIPMENT**—Five Athletic Fields, Two Gymnasiums, Natatorium, Boat House, Laboratories, Largest Physical Education Library in Existence.

**COURSES**—Four-year course for high school graduates. Two-year course for college graduates. Degrees, B.S., B.P.E., M.P.E., and M.Ed. Women are also admitted for graduate study. Trains for Christian leadership in physical education.

For information address - - - - - - - - - - - - - - - - JOHN D. BROCK, Secretary

## BOUVÉ-BOSTON SCHOOL OF PHYSICAL EDUCATION

BOSTON, MASS.

MARJORIE BOUVÉ, *President*

Four-year course in affiliation with Simmons College leading to B. S. degree.
Three-year course of preparation in teaching all branches of physical education.
Three-year course majoring in Physical Therapeutics. A course accredited by the American Physiotherapy Association.
Danish gymnastics taught by a graduate of Niels Bukh's Gymnastik Hojskolen, Ollerup, Denmark.
College graduates may complete the regular three-year course in two years if they have the necessary prerequisites for the work.

**For Catalogue Address Registrar**

105 SOUTH HUNTINGTON AVENUE, BOSTON

## ARNOLD COLLEGE

## *for* Hygiene and Physical Education

**THREE-YEAR COURSE . . . B.S.P.E. Degree** **FOUR-YEAR COURSE . . . . . B.S. Degree**

**prepare teachers of health education, offer clinical experience in physiotherapy, include camping seasons on Long Island Sound.**

***Co-Educational*** **Pupils admitted September and February** ***Womens' Dormitories***

## Special Academic Courses for Teachers

SUMMER SCHOOL - 1932 - FOR SIX WEEKS

**1466 Chapel Street** ***Catalogue*** **New Haven, Conn.**

## The SAVAGE SCHOOL for PHYSICAL EDUCATION

THE Savage School for Physical Education is the oldest Teacher Training School for Health and Physical Education in New York State. It is approved and chartered by the New York State Department of Education and offers a three year course which prepares High School Graduates to become Teachers, Supervisors and Directors of Health and Physical Education in Colleges, Schools, Camps, Playgrounds, Clubs, etc. Located in New York City, the Savage School is able to obtain for its faculty, men and women who are specialists and authorities in their respective subjects.

**For Catalogue address Registrar, 308 W. 59th St., New York City**

Please mention HEALTH AND PHYSICAL EDUCATION when writing advertisers

the previous seven semesters; individual athletic meets, tumbling, track and field events, stunt meets and tournaments, pentathlons, leagues and schedules.

3. Third Six Weeks.

Tests and measurements, also as review, drawing on the materials covered during the other seven semesters and worked into various means and methods for testing and measuring; athletic skills, neuro-muscular, athletic achievement, physical education achievement standards, modified Sigma Delta Psi, swimming and life saving tests.

### Incentives

Special after-school activities, at least one for each course, give the student an opportunity to receive special and advanced instruction in an activity he desires to pursue more fully as a result of having learned to like it from his initial contact in class work. These also offer the incentive for the students to use their leisure hours in groups, pairs, or individually on vacant lots, school grounds or their own back yards, practicing the skills learned in class, to qualify and be better prepared to pass the requirements for their chosen incentives. The list may be chosen from the list contained in the Playground and Community Activity Course of the senior year and include swimming, track and field meets, social hours, stunt and contest tournaments, point systems for letters, Girls' Athletic Association events, National Physical Achievement Standards, and modified Sigma Delta Psi events.

### Leadership

The entire program builds toward leadership, which culminates in the senior year when the students actually act in such capacity. The athletic training during the first ten minutes introductory unit of each class progressively develops an understanding of the whole program. In the senior year the students do the organizing, coaching, and officiating at intramurals, class leagues, and tournaments. These students may also be used to organize, direct, and officiate at the after-school and Saturday grade and junior high school activities. Likewise they may be the leaders in social hours, having had the simple stunts, contests, and games in the Freshman year, the social rhythms and group games in the Sophomore year, and program organization in the Senior year. The seniors are actually responsible under supervision for the conduct of the after-school social hour.

The seniors may also serve as squad leaders or assistants to the teacher, having taken all the class work progressively from the freshman to the senior year, when they actively participate as leaders. Their previous training enables them to qualify and direct without help for special leaders corps classes.

Perhaps the most valuable result of this program is the type of leadership for which these students are qualified. The eight courses include types of activities that can be used separately on playgrounds, after school and Saturdays, or during the summer. The activities are also practiced in competitive and mass participation, and in the senior year are present in program arrangement for use during the summer playground season. These students after finishing high school may be used as leaders on the school or community playgrounds.

## Blazing New Trails

*(Continued from page 22)*

### Model Play House

The model rooms for kindergarten and first grade pupils appeal to adults and children alike. Built between two class rooms, and with entrances from either, is a miniature house. The lower floor is an industrial arts shop and wardrobe, and contains a drinking fountain and lavatory. The second floor is partitioned into two play rooms. Viewed from one class room this house presents an Old English front decorated with "Gingerbread," while from the other class room it has the front of a French house. A second equally beautiful and similar suite has a Spanish house on one side and a Colonial on the other.

The junior high department offers the usual fundamental or integrating courses. Its "finding" and "exploratory" courses include general science, junior business, general language, general shop, home-making and vocation. They are designed to discover the children's respective aptitudes, interests and abilities and to make occupational and educational guidance possible and practical.

Enrollment in a special class does not necessarily mean total or even partial segregation. Assignment is made strictly on the merits of the case. The administration of the school has been made so flexible that any child may receive the benefits of any one or more of the departments or special classes of which he is in need. In other words, the Ann J. Kellogg School puts forth every effort possible to make any and all adjustments that are necessary to the welfare of each of its pupils.

### The Dedication Ceremonies

The building was appropriately dedicated by the addresses of prominent educators and state officials. Governor Wilber M. Brucker related the life story of Ann J. Kellogg, a pioneer teacher, in whose honor the building was named. Dr. Alexander Ruthven, President of the University of Michigan, stressed the application of research to education. In part he said:

"Given every variety of human types it should be evident that the educator, like the industrialist, must in an efficient society know how to get the most from his raw materials and that the only way to obtain this information is by painstaking, experimental investigation of our youth. . . .With ample evidence of the need for many kinds of instruction because of the variation in our students and differences in the method of approach in various fields of knowledge, it is remarkable that we are still quite generally unappreciative of the importance of research in methods of teaching. Schools of education are compelled to devote the major part of their facilities to training instructors who will deal with normal children, with the result that experimental schools are few in number and handicapped for funds. There is need now for laboratory schools, equipped with experts, which will experiment in the requirements of youth and the best methods of instruction, for every type of student represented in our population."

It was especially fitting that Dr. H. E. Barnard, Director of the White House Conference on Child Health and Protection, should have been present to assist in the ceremonies. He stressed the opportunities for this new school to carry out the provisions of the Children's Charter. To quote Dr. Barnard:

"This is indeed the age of children. There have been children as long as man has been on the earth. There will be children as long as the race continues. The new fact is the discovery of the significance of childhood. Individual children have always had some rights and privileges; parents have always recognized in some way their duties to the young. The new fact is the discovery that society as a whole has a definite, and overwhelming, responsibility, and the discovery that assurance of the rights of children is broader and deeper than we ever dreamed in the past. For it is also the readiest and the most effective way of assuring the future of society itself.

". . . .This is a new and intelligent approach to a consideration of the problems of the children who, in one way or another, deviate from the normal type. Here there is a new focusing of the educational vision, less upon methods and books, report cards, and diplomas, than upon the plastic, dynamic, highly vital human child himself. In this school, education becomes corrective as well as preparatory. The handicapped child marches side by side with the normal child.

". . . .Here, far above opportunities elsewhere available, the rights of the handicapped child are recognized so that, in so far as wise teachers and complete facilities can supply them, the special charge of the home and community will be provided with as vigorous a body as human skill can give him; an education so adapted to his handicap that he can be economically independent and have the chance for the fullest life of which he is capable. . . Life for him will not be shadowed by his handicap but filled full, day by day, with those things which make it worthwhile; with comradeship, love, work, play, laughter, and tears — a life in which these things bring continually increasing growth, richness, release of energies, joy in achievement."

## The Dance

*(Continued from page 14)*

past created must be kept in function if the organism as a whole is to be maintained in healthy condition.

It may not be necessary for the modern man of the auto and elevator and escalator to lift his foot six inches from the ground or his hand above his head but he accepts this limitation at his peril as statistics of nervous disorders, crime and sex perversion surely indicate.

I offer this observation because I know of many moderns who argue that we should concentrate in our dance upon the rhythms of our own machine age and that actions of piston rods, flywheels, and steam hammers should form the content of our ballets. For my part, I hold that the great achievements of the human spirit, including those which brought our wonderful organism to its present structure, are eternally new; and that particularly in those races of religious genius who sought for higher values with a directness and earnestness we lack are to be found rhythms which bespeak experiences we need.

The joy we have in the dance and the value the dance has as a body and personality builder arise from active experience of the rhythms of our living past and the re-organization of those rhythms into new patterns and compositions.

**THE RUTH ST. DENIS**
**SCHOOL of DANCING**
Complete Dance Education for Day and Boarding Pupils
**TRAINS and PLACES TEACHERS**
Curriculum covers: Oriental, Modern and German Technique, Music Visualization and Synchoric Method: Basic Ballet, Body building, Dance Pedagogy.
**DENISHAWN HOUSE**
67 Stevenson Place
Van Cortlandt Park New York, N. Y.

PANZER COLLEGE
OF PHYSICAL EDUCATION AND HYGIENE
Offers a four-year curriculum leading to the degree of Bachelor of Physical Education. The college is accredited and co-educational. High school graduates may register for the fall or spring term.
*For Catalogue, address*
Registrar, 139 Glenwood Avenue,
East Orange, New Jersey

THE ANN ARBOR PRESS
COMMERCIAL AND BOOK PRINTING
PRESS BUILDING
ANN ARBOR MICHIGAN

## A State Program

*(Continued from page 10)*

coaches who have the training and ideals of a teacher. Effective September 1, 1931, all high school coaches in Pennsylvania must be legally qualified teachers teaching full time. This does not necessarily mean that they shall be teachers of physical education. In many instances I should prefer that they are not, because I am interested in the success of the physical education program. I do not wish to have the success of the teacher of physical education depend alone upon his ability to win games.

Let us consider very briefly the athletic program for girls. The development of girls' athletics is following very closely the athletic program for boys. It is much more recent than athletics for boys and it is natural, therefore, that the girls' program should tend to model itself after that of the boys. Intensive interschool athletics for girls is, unfortunately, strongly established in many of our smaller schools. This has led to a very definite focusing of attention on the school team. There are certain elements of danger in the school team system for girls. The existence of these elements has led to the recognition of the need of different emphasis on athletics for girls.

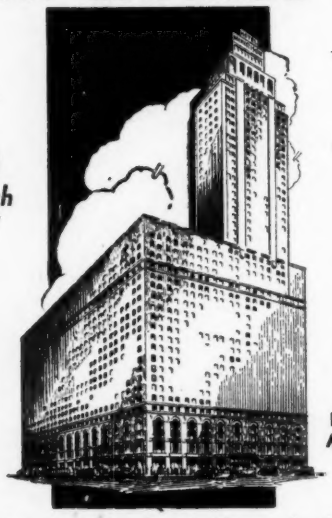
I find myself quite generally in agreement with the platform of the Women's Division of the National Amateur Athletic Federation. We are discouraging interschool basketball for girls in Pennsylvania. Where it exists, we are attempting to safeguard the welfare of the girls taking part. In the state requirements for classification of high schools we are insisting next year that the schedule shall not exceed eight games, that the practice periods shall be limited in number, that there shall be not more than one game a week, and that all coaching and officiating shall be in charge of women.

We hear much these days with reference to over-emphasis in athletics. What has really happened is that we have placed the wrong interpretation on conditions. The schools are not suffering from an over-emphasis on sports and athletics but rather they are suffering from an over-emphasis of the commercial implications and the importance of victory. The thing we should be decrying is the lack of participation in athletics by the majority of students both during their years at school and afterwards. We wonder why recent Olympic games have shown our athletic supremacy being wrested from us by other people. Our young men step out of athletics and sports when they leave school or college, while in Europe whole nations are turning to sports.

Space will not permit a further analysis of athletic conditions as they are conducted at present, nor would I wish to end this discussion dwelling entirely upon the unfavorable practices which we all recognize are present today. In athletics we have one of the most valuable mediums for social and personal development that it is possible to possess. We see temper controlled under great provocation; submission to discipline and denial of pleasures which would have been legitimate but for the fact that they were enervating. These are splendid qualities. They are qualities that make for good citizenship, and that make for what is called success in life. They may be developed on the athletic field as probably nowhere else. Thus, we find many items to be entered on the credit side of the ledger in the account for athletics. I call attention to them because in our zeal to reform or to curtail them, we are in danger of looking so fixedly at the evils that we lose sight of the real contribution which athletics has to make to the education of the individual boy or girl.

To summarize briefly, if our program in physical education is to go forward, we must give more attention to the quality of the program itself. The employment of trained teachers and provision for adequate facilities and time allotment are not sufficient. In health instruction, more careful evaluation of materials of instruction, more attention to methods of instruction and more opportunities for healthful practices and development of right attitudes with less attention to informational hygiene or physiology is needed. In athletics, a more serious attempt should be made to stress educational objectives, as it is an activity fertile in possibilities for development of the highest aims in education. In other words, let us do all we can in the light of our experience and the infinite possibilities of the field, to present a program that is truly educational in both objectives and results and that will make a worthy contribution to the field of general education.

IN CHICAGO



*World's Tallest Hotel 46 Stories High*

LEONARD HICKS
*Managing Director*

The extra attention given to the needs of guests will favorably impress you. Nearest to stores, offices, theatres and railroad stations. Each guest room is outside with bath, circulating ice water, bed-head reading lamp and Servidor. Housekeeper on each floor. Garage facilities.

2500 ROOMS $3.00 UP

MORRISON HOTEL

Madison and Clark Streets CHICAGO

# High School Intramurals

*(Continued from page 42)*

name is engraved after the sport at the end of the season for that sport.

The unit having the largest total number of points to its credit at the end of the year is presented a large loving cup to be held for the coming year. Class and year are engraved thereon.

The individual with the largest total of points is awarded a suitable medal properly engraved.

Note: Money to cover cost of trophies may be obtained by a small admission charges to games, a "Faculty vs. Intramural Champs" game, an "Intramural All-Stars vs. Varsity" games, etc.

### Explanations

The following explanations come out of the experience we have had in carrying out the above program in our own school system in which there are one hundred boys enrolled in the High School. We do not use freshmen boys in interscholastic competition. Our varsity sports consist of football, basketball, wrestling, baseball, and track. Ninety-five per cent of the boys were enrolled in varsity and intramural athletics last year. Boys are not given Physical Education credit for varsity or intramural athletics.

It has been found that this method of unit division keeps the strength of the various teams about equal. Ninth grade boys do not participate in varsity athletics, therefore all freshmen will be eligible to complete on intramural teams. The fact that advance grades have boys who are larger, older, and more mature, is offset by the fact that the more capable members of their classes are taking part on either the varsity or reserve squads.

Members of the varsity teams are not eligible to participate in sports in which they have been selected by the coach as a member of the varsity squad. Letter men who are not eligible for varsity competition cannot participate in intramurals in the sport in which their letter was awarded.

Training and coaching for intramurals is given in the required work previous to competition in any sport.

In wrestling there are eight weight classes but only four boys may enter from each unit. No boy can enter who has not had training previous to the meet.

The scoring plan is such that each team and each boy taking part will score. Double credit is given for major sports, yet an individual who has been lucky enough to be on a winning major team or teams is very unlikely to be high point man without showing his ability in individual sports.

---

Dr. Charles A. Beard, author of "Whither Mankind" and "The Rise of American Civilization," in an article appearing in the January, 1932 issue of Scribner's magazine, makes the following expressive statement:

"...Then for the leisure hours, to enrich life and recreate it for the sterner tasks of labor and sacrifice, there are music, gymnastics, dancing and the drama — without which life would be sterile and dusty."


**American College of Physical Education**

**ACCREDITED** **CO-EDUCATIONAL**

*1 Yr. Playground Course.*
*2 Yr. Normal Diploma Course.*
*1 Yr. Physical Therapy Course.*
*3 Yr. Course Leading to a Bachelor of Physical Education Degree.*

24th Yr. Prepares young women and men to become Directors of Physical Education, Playground Supervisors, Dancing and Swimming Instructors; also Department of Athletic Coaching. High School graduates admitted. Special students accepted. Large gymnasium, swimming pool, dancing auditorium. School and Dormitory on beautiful north side. Placement Bureau. Spring term Feb. 2. Summer term June 22.

**For Free Catalogue and Views Address**
**Dept. J, 1019 Diversey Parkway, Chicago, Ill.**

LIVING «» STATUARY

By
L. W. OLDS

Poses suitable for Physical Education Demonstration, Camp Stunt Nights, Dramatic Entertainments, etc.

BOOKLET
Price 50c

Address
LLOYD W. OLDS

Physical Education Department, Michigan State Normal College, Ypsilanti, Michigan

**Award Trophies, Medals, Ribbons**

We handle an artistic line of trophies and medals with life-like figures. These awards can be had in appropriate designs for all Major and Minor sports; also as intra-mural awards. Write for special catalog.

**The Athletic Supply Co.**
TWO STORES
Columbus, Ohio — Toledo, Ohio

**K E N D A L L**
**COLLEGE OF PHYSICAL EDUCATION**
*Formerly Chicago Normal School of Physical Education*

Be a director of Physical Education, playground supervisor, dancing teacher, or swimming instructor. Two-year diploma and three-year B.P.E. courses for young women high school graduates. Accredited. Free appointment bureau. Faculty of trained specialists. Complete equipment. Fine dormitories. Catalog.

*Mid Term Opens February 1st*
**Registrar, 5026 Greenwood Avenue**
Box 612 Chicago, Illinois

**Practical Booklets on Physical Education**

| | |
|---|---|
| "Marching Calisthenics and Fancy Steps for the Gymnasium" | $ .60 |
| "Successful Drills and Marches" | .60 |
| "240 Breathing Exercises" | .60 |
| "Dances, Drills and Entertainments" | .85 |
| "A Simple Maypole Dance" | .30 |
| "450 Gymnastic Exercises without Apparatus" | .85 |
| SPECIAL: The six booklets for | 3.00 |

M. O. MUST accompany order.
MRS. GERTRUDE W. LUNDGREN
829 N. Fifth Street Burlington, Iowa

Please mention **HEALTH AND PHYSICAL EDUCATION** when writing advertisers

# New Books Received

Complete book reviews are contained in the RESEARCH QUARTERLY

**The All-Year School of Nashville, Tennessee.** Field Studies No. 3, Division of Surveys and Field Studies, George Peabody College for Teachers, Nashville, Tennessee. 1931. 60 pages. 25c.

An interesting study under the headings of Attendance, Withdrawals, Summer Quarter versus Regular Quarter Attendance, Pupil Subject Load, Failures, Teacher Pupil Load, Summer Quarter Attendance and Achievement and Attendance and Grade Placement, and Cost.

**Ice Hockey.** Alexander Sayles and Gerard Hallock III. A. S. Barnes & Company. 132 pp. 24 illus. $2.00.

At first glance, this book impresses one with its very appropriate cover, which strongly resembles a field of ice. Then, its title reminds one that there is very little printed material along the line of "Ice Hockey" and this game is becoming more and more popular each year. We are not disappointed either, for upon reading the book, we find much helpful material for coaches as well as for players of "America's Fastest Game." It gives the history and development of "Ice Hockey," the fundamentals of play, diagrams of plays, general hints to players and coaches, and splendid illustrations. The new rules for 1931-32 are also discussed. Those interested in this sport will surely want to own this attractive little book.

**School Athletics in Modern Education.** Wingate Memorial Lectures, 1930-31. Wingate Memorial Foundation, Inc., 57 East 56th Street, New York City. 670 pp. $2.00.

This book is a printed record of the Wingate Memorial Lectures given during the year 1930-31. The addresses are given each Saturday morning throughout the school year to teachers of athletics in the public schools of New York City and to others interested. This collection of lectures by experts in their respective fields is an education in itself. They come under the general headings of Athletics and Education, Athletics and Health, Special Problems in School Athletics, Baseball, Basketball, Fencing, Football, Golf, Handball, Lacrosse for School Boys, Riflery, Skating, Soccer, Speedball, Swimming and Diving, Tennis, Track and Field. The supply of the book is limited.

**Living the Liver Diet.** Elmer A. Miner, M.D. C. V. Mosby Company. 106 pages. $1.50.

An interesting little book, particularly for those who like liver. The diet consists not only of liver but of fruits, red muscle meats, vegetables, fats, sweets, starches, milk and beverages, all of which are discussed and recipes given. Liver may be served anywhere in the meal from an appetizer to a dessert. While the book is particularly helpful to patients of pernicious anemia, yet it is "for anyone desiring a reducing diet and for anyone desiring good health."

**Syllabus for Dance Study.** Lucile Marsh. (Mimeographed) American Association of University Women, Washington, D. C. 42 pp.

A comprehensive list of thought-producing questions under the headings of: The Dance in Relation to Life, The Dance in Relation to the Fine Arts, The Dance as a Fine Art, Forms and Types of Dancing, The Dance as Education, Great Personalities of the Dance, Modern American Dance Art. Dance Appreciation and Criticism. An interesting bibliography completes the syllabus.

**The Physiology of Muscular Exercise.** F. A. Bainbridge. Third Edition, rewritten by A. V. Bock and D. B. Dill. Longmans, Green & Co. 272 pp. $5.00.

This book has been brought up to date according to scientific knowledge. It contains chapters on The Sources of Muscular Energy, on Physico-chemical Changes in the Blood occuring during exercise with relation to the Output of the Heart, the Blood Supply to Active Organs, the Passage of Oxygen into the Tissues, and the Coordination of the Changes. The Nature of the Diet, Effects of Training, Second Wind; Exercise at High Altitudes and the Process of Acclimatization, the After-effects of Exercise as to Circulatory and Respiratory Changes and Fatigue and the Beneficial Effects of Exercise are discussed. A comprehensive bibliography increases the value of the book.

**School Ventilation.** New York Commission on Ventilation. C. E. A. Winslow, Chairman. Bureau of Publications, Teachers College, Columbia University. 73 pp. $1.00.

The New York Commission on Ventilation feels that the mistaken idea embodied in the laws of twenty states, requiring an air supply of thirty cubic feet per minute per person, is a handicap to progress in the art of school ventilation. They point out the enormous unnecessary annual expenditure along this line. The studies and recommendations contained in this little book will be of great help to all interested in the problem of ventilating public buildings.


## OUR ADVERTISERS DESERVE YOUR PATRONAGE

**BOOK PUBLISHERS**

American Physical Education Association....41, 47
Ann Arbor Press....61
A. S. Barnes & Co....32, 33
Lea & Febiger....Rear Inside Cover
Lundgren....63
L. W. Olds....63

**FIELD AND GYMNASIUM EQUIPMENT**

Fox Tent and Awning Co....Rear Inside Cover
Narragansett Machine Co....51

**HEALTH MATERIALS**

Clay-Adams Co....45
Denver Chemical Co....45
T. A. Patterson Laboratories....57

**SCHOOLS AND COLLEGES**

American College of Physical Education....63
Arnold College....59
Bouve-Boston School of Physical Education....59
International Y.M.C.A. College....59
Ithaca College....56
Kendall College of Physical Education....63
Panzer College....61
Posse-Nissen School of Physical Education..Inside Rear Cover
Russell Sage College....53
Sargent School of Physical Education....56
Savage School of Physical Education....59
Ruth St. Denis School of Dancing....61
Wellesley College....55

**SPORTING GOODS, CLOTHING, SHOES, SUPPLIES**

Aldrich & Aldrich....Outside Rear Cover
Athletic Supply Co....63
Chancellor & Vaughan....Inside Front Cover
Draper-Maynard Co....2
Ihling Bros. Everard Co....55
Nestor Johnson Mfg. Co....43
E. R. Moore Co....49

**MISCELLANEOUS**

Dwight Posture Model....57
Morrison Hotel....62
Weyhing Bros. Mfg. Co....53